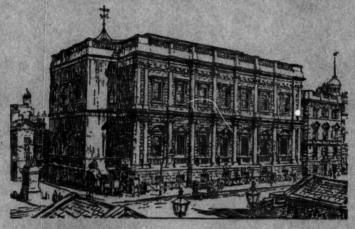
FEBRUARY 1951



JOURNAL



Royal United Service Institution

WHITEHALL, LONDON, S.W.1

ALL RIGHTS RESERVED

PUBLISHED QUARTERLY

Grice Seven Shillings and Sixpence

Advertisement Manager

A. W. G. BARRETT, 15 CHARTERHOUSE St., E.C.1. Telephone: HOLBORN 8655-6

H. S. LEES-SMITH & CO.

INSURANCE BROKERS

For over thirty years, in peace and war, we have had the honour of dealing with the Insurance problems of Officers

BUSINESS TRANSACTED BY CORRESPONDENCE
UNLESS OTHERWISE REQUESTED

Write for particulars to :-

LLOYDS BANK CHAMBERS
ALDERSHOT



Lifeboatmen volunteer their lives . . . you can volunteer a contribution

Help them to carry on this voluntary work of saving lives by sending a contribution however small

ROYAL NATIONAL LIFE-BOAT INSTITUTION

42, GROSVENOR GARDENS, LONDON, S.W.I

The Duke of Montrose, K.T., C.B., C.V.O., V.D., Treasurer Col. A. D. Burnett Brown, M.C., T.D., M.A., Secretary





Hire a new car and drive it as your own

This is the perfect way to see Britain. Drive yourself in a luxurious 4-5 passenger saloon. Go where you wish, as you wish—when you wish—1/- a mile (low daily minimum). For four persons it's only 3d. a head including insurance (and petrol and oil, too, in Great Britain).

New chauffeur-driven limousines also at your service.

Our cars meet your ship, your 'plane. All details arranged, licences, many etc. by the largest car, hire service in

licences, maps, etc. by the largest car hire service in Europe. Pay for what you use and travel better for less.



Make your reservat on by applying direct to:

GODFREY DAVIS LIMITED

7 ECCLESTON STREET, LONDON, S.W.I

Telephone: SLOANE 0022 Cables: QUICKMILEZ, LONDON

HERTZ SERVICE IN EUROPE

GENERAL MARK CLARK

His account of adventures and campaigns in North Africa, Sicily and Italy, of experiences in Britain, and of his term as American High Commissioner in Austria.

CALCULATED RISK

Illustrated

HARRAP

About 25/-



HERALDIC WALL SHIELDS

FOR INTERIOR DECORATION OF CHARM DIGNITY AND GREAT PERSONAL INTEREST

HE Arms or Badge of your old Regiment, Ship, Squadron, University or Family can be beautifully reproduced in full colour with details usually in relief, mounted on Oak Plaques as illustrated $(7'' \times 6'' - 26/6d.; 10'' \times 7'' - 45/-, etc.)$. We send them all over the World without any need for sketches. Family Coats of Arms and Civic devices are largely recorded on our files and it is surprising how many family names are attributed with their own arms. Heraldic Academic and Sporting Trophies are another speciality. Literature is sent free anywhere, and its illustrations do better justice to the high standard of craftsmanship maintained, than can the pen and ink drawing above. An example of the larger devices prepared for mural decoration of Club Rooms, may be inspected in a niche of the R.A.F. Room at the Victory Club, London, for which we were privileged to supply one of our carvings.

HUNTER AND SMALLPAGE LTD. (ESTABLISHED 1875)

YORK, ENGLAND

Telephone: YORK 3042

Cables: "FURNITURE" YORK



DEALERS H.M. THE KING

REGIMENTAL PAINTINGS PRINTS, CURIOS AND MILITARY BATTLES



2, ALBEMARLE ST. LONDON, W.1 (adjoining Piccadilly)

THE OLDEST ESTABLISHED FIRM OF PRINT & PICTURE DEALERS FOUNDED 1750

Cables :

CATALOGUE FREE ON APPLICATION

UNIFORM PLAIN CLOTHES

Gieves

27 GLD BOND STREET, LONDON, W.I

Telephone: Regent 2276

BRANCHES



★ Specially packed for overseas areas.

offee

AVAILABLE ONLY TO THOSE ENTITLED TO DEAL AT

NAAFI SHOPS

SOUTH-EAST ASIA 1943-1945

Lord Mountbatten's Report

The exploits of the "Forgotten Army" which thwarted Japanese ambitions for the conquest of India, and rolled back their forces over the ground lost so rapidly in the ill-fated days of 1941, are described in this personal account by the Supreme Allied Commander

Price 17s. 6d. By post 18s. 4d.

H.M. STATIONERY OFFICE

York House, Kingsway, London, W.C.2; 429 Oxford Street, London, W.I (Post Orders: P.O. Box 569, London, S.E.I); 13a Castle Street, Edinburgh, 2; 38 King Street, Manchester, 2; 2 Edmund Street, Birmingham, 3; 1 St. Andrew's Crescent, Cardiff; Tower Lane, Bristol, 1; 80 Chichester Street, Belfast; or through any bookseller.



BOSTOCK & KIMPTON LTD WINE MERCHANTS SPECIALISING IN SERVICE TO NAVAL, MILITARY AND AIR FORCE MESSES Proprietors of "G.H.Q." Sherry

> 56 HAYMARKET LONDON, S.W.1

TELEPHONE

TRAFALGAR 1441-2 BOSKIMTOCK, LESQUARE, LONDON STATIONED AT WHITEHALL?

Why not stay at

SUNDRIDGE PARK HOTEL

for comfort?

Golf Course, Hard Tennis Court, free Taxi service morning and evening trains. Children welcomed. Central heating. Telephone every room, Cocktail Bar. 30 minutes Charing Cross Station. Special terms for Services for long visits. Tel: Ravensbourne 1172.

James Lock & Co. Ltd.,

Service Cap Makers & Batters,

6, St. James's Street,

London, S.W.I

WHITEHALL 8874.

LOCKHATTER,

C. H. MUNDAY, LIMITED

INCORPORATING MARTIN & COMPANY

CLUB COLOUR HOUSE, ₇, IRVING STREET, LEICESTER SQUARE, W.C.2

WHITEHALL 1319

SERVICES, OLD BOYS' TIES, ETC.

HERALDIC WOODEN SHIELDS (7"×6")
26s. 6d. (postage 6d. U.K.)

SPORTS TROPHY SHIELDS Any Size to Order

FREE LEAFLETS ON HERALDRY

-BOOKS-HUGH REES LTD.

Military, Navel and General Booksellers, Stationers & Publishers 47, PALL MALL, S.W.1



REMEMBER Two Steeples No.83

quality when you want a good pair of socks.

FROM ALL HOSIERS

FOR ADAPTABILITY



THE ALECTO SELF-PROPELLED GUN MOUNTING

The Alecto was designed by Vickers to meet the need for a light self-propelled gun for the close support of infantry. It is equally efficient as a gun tractor. Rapid acceleration and great manoeuvrability enable this dual purpose vehicle to maintain a high average speed and all-round performance even under very severe physical and climatic conditions, as recent tests have proved.



ACTING AS CUN TRACTOR .

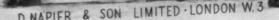


· · · UNDER ROUGH CONDITIONS

Vickers-Armstrongs Limited

VICKERS HOUSE, BROADWAY, LONDON, S.W.1.





CONTENTS FEBRUARY, 1951

Secretary's Notes						***	***			i
Frontispiece: The Gloste	r Mete	eor 8.								
The International Situatio	n in Eu	rope	(Lectur	e). By	Mr. S	ebastia	n Haffr	ner		1
Germany To-day (Lecture)	. By I	Major-	Gener	al LI. V	Vansbro	ough-Jo	ones, C	.B., C.	B.E.	15
Cold War Problems. By	Wing	Comn	nander	E. Ho	well, O	.B.E., [D.F.C.			29
Progress and Special Prol Richard Gale, K.B.I						ture).	By Li	eutGe	neral S	Sir 34
The Influence of the Late								O. E. C	Chapma	n 47
A Survey of the Trials of M.C., B.A., A.M.I.E	War C						_			
Obedience to Lawful Com										71
The Royal Air Force Part i Leader B. Walford,	n the	Antaro				een M	aud La	nd. By	Squadr	on 74
The War in the Pacific, I'M. E. Fooks, O.B.E.	943-44	-Gua			eyte Gu					nel 81
Japanese Submarines in the				ar. By			Golding	ham. F	R.Hist	
Regimental Tradition in t Artillery Company	he Infa	antry	of the	Line.	Ву Ма	jor C.	E. Jar	vis, Ho	noural	ole
The Case for the Regimen		tem.		utCol	onel B.	E. Fer		, D.S.O		E.,
The Black Watch				-						106
Aeroplanes for To-morrov										111
Some Naval Aspects of a	n Assa		inding.	By L	ieutena 	nt-Cor	nmand 	er R.	Stanbui	ry, 117
An Army on the Cheap.	Ву В	rigadi	er-Gen	eral Si	r James	Edmo	nds. K	t., C.B	C.M.	G. 121
Nepal. By Colonel R. G.		-								126
The Aden Command. By										130
Training the National Se				,						
The Royal Scots					,					134
The Navy's Food. By Co	mman	der (S)	T. P.	Gillesp	ie, R.N	l.				139
The R.U.S. Museum: The	Rube	ns Cei	ling			***	***			143
The International Situation	n. By	A. K.	Chest	erton,	M.C.					144
(i) Korea										144
(ii) Indo-China				***		***	***			145
(iii) South-East Asia				***				***		146
(iv) Middle East							***			147
(v) Recognition of S	pain .									147
Diary of the War in Kore	a .								***	148
General Service Notes					***				***	156
Navy Notes										164
Army Notes							***		***	176
Air Notes										183
Reviews of Books										190
Additions to the Library										196
and the series at y					-55		2.5			

NOTE

Authors alone are responsible for the contents of their respective papers.



THE FAIREY AVIATION CO. LIMITED . HAYES . MIDDLESEX

JOURNAL

THE ROYAL UNITED SERVICE INSTITUTION

of the

Royal United Service Institution

Published by Authority of the Council
ALL RIGHTS RESERVED



Postal Address: Whitehall, London, S.W.I.

Telephone No.; Whitehall 5854.

Telegraphic Address: "Russatus, Parl, London."

Vol. XCVI

FEBRUARY, 1951

No. 581

Advertisement Manager:

A. W. G. BARRETT, 15, CHARTERHOUSE STREET, LONDON, E.C.1.

Telephone: Holborn 8655/6.

THE ROYAL UNITED SERVICE INSTITUTION

FOR

THE PROMOTION AND ADVANCEMENT OF THE SCIENCE AND LITERATURE OF THE THREE SERVICES.

PATRON

HIS MAJESTY KING GEORGE VI.

VICE-PATRON

H.R.H. THE PRINCESS ELIZABETH, K.G., C.I., Duchess of Edinburgh.

PRESIDENT

General H.R.H. The DUKE OF GLOUCESTER, K.G., K.T., K.P., G.C.B., G.C.M.G., G.C.V.O.

VICE-PRESIDENTS

Field-Marshal The Viscount Alanbrooke, K.G., G.C.B., O.M., D.S.O.
Field-Marshal Sir Claude Auchinleck, G.C.B., G.C.I.E., C.S.I., D.S.O., O.B.E., LL.D.
Air Chief Marshal Sir Robert Brooke-Popham, G.C.V.O., K.C.B., C.M.G., D.S.O., A.F.C.
Admiral of the Fleet The Earl of Cork and Orrery, G.C.B., G.C.V.O.
Marshal of the Royal Air Force Sir Edward Ellington, G.C.B., C.M.G., C.B.E.
General Sir Harry H. S. Knox, K.C.B., D.S.O.
Admiral Sir Charles J. C. Little, G.C.B., G.B.E.

Field-Marshal The Lord Wilson of Libya, G.C.B., G.B.E., D.S.O. ELECTED MEMBERS OF COUNCIL Royal Navy

Rear-Admiral W. W. Davis, D.S.O.
Rear-Admiral R. M. J. Hutton, C.B.E., D.S.O.
Admiral Sir Henry Moore, G.C.B., C.V.O., D.S.O., (Chairman of the Council).
Admiral Sir Arthur J. Power, G.C.B., G.B.E., C.V.O., A.D.C.

Royal Marines

Lieut.-General Sir LESLIE HOLLIS, K.B.E., C.B., R.M.

Royal Naval Reserve

Commodore R. HARRISON, D.S.O., R.D., R.N.R.

Royal Naval Volunteer Reserve Captain Rex Janson, V.R.D., R.N.V.R.

Regular Army

Major-General J. A. GASCOIGNE, C.B., D.S.O.

General The Lord ISMAY, G.C.B., C.H., D.S.O., M.C. (Vice-Chairman of the Council).

Major-General L. O. Lyne, C.B., D.S.O., M.C.

General Sir Ouvry L. Roberts, K.B.E., C.B., D.S.O.

General Sir Gerald W. R. Templer, K.B.E., C.B., C.M.G., D.S.O.

Major-General G. P. Walsh, C.B., C.B.E., D.S.O.

Territorial Army

Brigadier Sir George S. Harvie-Watt, Bt., T.D., A.D.C., K.C., D.L. Major-General Ivor T. P. Hughes, C.B., C.B.E., D.S.O., M.C., D.L. Lieut.-Colonel R. D. Judd, D.S.O., M.C. Brigadier J. A. Longmore, C.B.E., T.D., D.L.

Royal Air Force

Air Chief Marshal Sir Norman Bottomley, K.C.B., C.I.E., D.S.O., A.F.C. Marshal of the Royal Air Force Lord Newall, G.C.B., O.M., G.C.M.G., C.B.E., A.M. Air Chief Marshal Sir James M. Robb, G.C.B., K.B.E., D.S.O., D.F.C., A.F.C.

Royal Auxiliary Air Force and Royal Air Force Volunteer Reserve Air Commodore F. Crerar, C.B.E.

REPRESENTATIVE MEMBERS

ADMIRALTY

Director of Tactical and Staff Duties: Captain R. G. ONSLOW, D.S.O., R.N.

WAR OFFICE

Director-General of Military Training: Lieut.-General Sir Richard N. Gale, K.B.E., C.B., D.S.O., M.C.

AIR MINISTRY

Assistant Chief of Air Staff (Training): Air Vice-Marshal T. N. McEvoy, C.B., C.B.E.

EX-OFFICIO MEMBERS

First Sea Lord: Admiral of the Fleet Lord Fraser of North Cape, G.C.B., K.B.E. Chief of the Imperial General Staff: Field-Marshal Sir William J. Slim, G.C.B., G.B.E., D.S.O., M.C.

Chief of the Air Staff: Marshal of the Royal Air Force Sir John Slesson, G.C.B., D.S.O., M.C.

Director, Territorial Army and Sadets: Major-General E. O. HERBERT, C.B., C.B.E., D.S.O. President of the Royal Naval College, Greenwich: Admiral Sir HAROLD KINAHAN, K.B.E., C.B.

Commandant of the Imperial Defence College: Admiral Sir Charles Daniel, K.C.B., C.B.E., D.S.O.

Commandant of the Joint Services Staff College: Major-General W. H. STRATTON, C.B., C.V.O., C.B.E., D.S.O.

Director of the Royal Naval Staff College: Captain J. W. M. EATON, D.S.O., D.S.C., R.N. Commandant of the Staff College, Camberley: Major-General A. D. WARD, C.B., C.B.E., D.S.O.

Commandant of the R.A.F. Staff College: Air Vice-Marshal J. D. I. HARDMAN, C.B., O.B.E., D.F.C.

HONORARY MEMBERS OF THE COUNCIL

Major-General H. C. THACKER, C.B., C.M.G., D.S.O. (Canada).
Lieut.-General A. J. Boase, C.B.E. (Australia).
Major-General Sir A. H. Russell, K.C.B., K.C.M.G. (New Zealand).
General Sir Pierre Van Ryneveld, K.B.E., C.B., D.S.O., M.C. (South Africa).
General K. M. Cariappa, O.B.E. (India).
General Sir Douglas Gracey, K.C.I.E., C.B., C.M.G., M.C. (Pakistan).

STAFF

Secretary, Chief Executive Officer and Curator: Lieut.-Colonel P. S. M. WILKINSON. Editor and Museum Registrar: Major-General R. E. VYVYAN, C.B.E., M.C. Librarian:

Deputy Curator and Assistant Executive Officer: Captain J. H. LAING.

Auditors: Messrs. Barton, Mayhew & Co.

Alderman's House, Bishopsgate, E.C.2.

Bankers: ROYAL BANK OF SCOTIAND, DRUMOND'S BRA

Bankers: ROYAL BANK OF SCOTLAND, DRUMMOND'S BRANCH, Charing Cross, S.W.I.

THE INSTITUTION

The Institution is situated opposite the Horse Guards in Whitehall. It provides Members with a comfortable reading room containing the leading papers, periodicals and principal Service (including foreign) Journals.

There is a Lecture theatre where lectures are given followed by discussions in which officers of every rank are encouraged to take part.

Members can obtain on loan four volumes at a time from the best professional library in the Country. They are provided with a free copy of the JOURNAL.

There is a private entrance to the celebrated R.U.S. Museum in the former Banqueting Hall of old Whitehall Palace.

MEMBERSHIP .

Commissioned officers of all H.M. Services, including those of the Dominions and Colonies, also Midshipmen of the Royal and Dominion Navies, the R.N.R., R.N.V.R. and R.N.V.S.R. are eligible for membership without formality.

Naval, Military and Air Force Cadets are eligible on the recommendation of their Commanding Officers.

Ladies whose names appear or have appeared in the official lists as serving or having served as officers in any of the three Services are eligible.

Officers' messes are not eligible for membership, but may subscribe to the IOURNAL.

SUBSCRIPTION

The rates of subscription are :-

ED.W.



			Terena		to	S.	a.
Annual Subscription	***	***	***	***	I	10	0
Life Subscription	***	***			24	0	0
or four yearly instalments of	***	17015.81	***	***	6	6	o each.
Covenanted Life Subscription	-seve	en yea	arly in	stal-			
ments of	200	WHID C	11 Par 18	OBV.	3	12	0

Full particulars of membership with alternative forms for bankers' orders, and for deeds of covenant enabling the Institution to recover income tax, can be obtained on application to the Secretary, R.U.S.I., Whitehall, S.W.I.

The Journal is published in February, May, August and November. Copies may be purchased by non-Members, price 7s. 6d. Annual subscription, £1 10s. post free. Orders should be sent to the Secretary, Royal United Service Institution, Whitehall, S.W.1.

MUSEUM

The R.U.S. Museum is open daily from 10 a.m. to 5 p.m., except on Sundays, Christmas Day and Good Friday. Members may obtain free passes for their friends on application to the Secretary.

ROYAL DAILS ON SOUTLAND DRUMHOUS SHAMES.

H.M. Forces in uniform are admitted free,

SECRETARY'S NOTES ANNIVERSARY MEETING

The Anniversary Meeting will be held at 3.0 p.m. on Tuesday, 6th March, 1951. The Council will present their Annual Report and Accounts, and there will be an election to fill the vacancies on the Council. Copies of the Annual Report and Accounts for 1950 can be obtained on application to the Secretary.

COUNCIL

Elected Members

Lieut.-General Sir Gerald Templer, K.B.E., C.B., C.M.G., D.S.O., has been elected a Member of the Council in the vacancy caused by the election of Field-Marshal Sir Claude Auchinleck as a Vice-President.

Representative Members

Air Vice-Marshal T. N. McEvoy, C.B., C.B.E., has succeeded Air Vice-Marshal S. D. Macdonald, C.B.E., D.F.C., as Air Ministry Representative on the Council.

Honorary Members

General Sir Pierre van Ryneveld, K.B.E., C.B., D.S.O., M.C., has accepted the invitation of the Council to become an Honorary Member in the vacancy caused by the death of Field-Marshal The Rt. Hon. J. C. Smuts, O.M., C.H. (South Africa).

STAFF

The following appointments have been made by the Council:-

Lieut.-Colonel P. S. M. Wilkinson as Secretary, Chief Executive Officer and Curator.

Major-General R. E. Vyvyan, C.B.E., M.C., as Editor and Museum Registrar. Captain J. H. Laing as Assistant Executive Officer and Deputy Curator.

Members have already been notified of the vacancy in the appointment of Librarian.

NEW MEMBERS

The following officers joined the Institution between 1st November, 1950 and 31st January, 1951:

NAVY M. of the condition of the state of the

Lieutenant-Commander J. S. Bailey, O.B.E., R.N.

Lieutenant G. J. Simmons, late R.N.V.R.

Lieutenant (E) P. E. Melly, R.N.

Commander G. R. M. De Mel, O.B.E., Royal Ceylon Navy.

Commander (E) P. C. Gibson, R.N.
Midshipman (S) K. B. Hook, R.N.

Lieutenant J. W. M. Pullen, late R.N.V.R.

Captain J. A. C. Uniacre, Royal Marines.

Lieutenant-Commander S. Visvanathan, Indian Navy.

Commander F. W. Lipscomb, O.B.E., R.N.

Correction: November, 1950 issue.

For Surgeon Captain R. J. Willan, R.N.V.R., read Surgeon Rear-Admiral R. J. Willan, C.B.E., M.V.O., F.R.C.S., R.N.

ARMY

Captain J. N. Somerville, The South Wales Borderers (24th Regiment).

Lieutenant H. H. Moore, The Northamptonshire Regiment.

Lieut.-Colonel Sayad Gulam Mohd Peerzada, 8th Punjab Regiment, Pakistan

Major E. R. B. Hudson, T.D., Royal Engineers.

Captain D. B. Metcalfe, The Gloucestershire Regiment.

Captain P. E. Collins, Royal Artillery.

Major A. K. Richardson, late The Royal Welch Fusiliers and Royal Pioneer Corps.
Captain G. G. Pierce, O.B.E., R.A.S.C.

Captain J. A. Aylmer, Irish Guards.

Lieut.-Colonel H. K. Bhagwat, Indian Army.

Major D. R. Carroll, Royal Engineers.

Colonel A. G. Chitty, J.A.G. Dept.

Captain C. A. Haggard, late The Queen's Royal Regiment and The Middlesex Regiment.

Lieut.-General Sir Brian Horrocks, K.C.B., K.B.E., D.S.O., M.C.

Major A. L. King-Harman, Royal Artillery.

Captain F. W. W. Langley, T.A.R.O.

Captain B. M. McNeil-Smith, Royal Artillery.

Captain A. P. Withy MacLellan, Coldstream Guards.

Captain A. J. Mann, M.C., The King's Own Scottish Borderers.

Major R. M. S. Maude, Royal Engineers.

2nd Lieutenant R. M. Mays-Smith, Irish Guards.

Captain P. J. Oelofse, South African Artillery.

Lieut.-Colonel S. N. Raza, P.A.V.O. Cavalry (11th F.F.), P.A.

Captain A. H. N. Reade, 3rd Hussars.

Lieut.-Colonel J. W. Stephens, D.S.O., 2nd King Edwards VII Own Gurkha

General Sir Gerald W. R. Templer, K.B.E., C.B., C.M.G., D.S.O.

2nd Lieutenant T. Tracey, R.A.S.C.

Captain H. W. Watson, Royal Australian Infantry.

Major Abhi-Manyu Vohra, 9th Gurkha Rifles, I.A.

Brigadier M. F. Coulshed, C.B.E., W.R.A.C.

Captain L. S. Durrant, The Worcestershire Regiment,

Major W. J. Mellors, R.E.M.E.

Captain N. W. Alexander, Grenadier Guards.

Captain D. S. Haynes, The Cameronians (Scottish Rifles).

Captain M.R. Leahy, M.C., Royal Artillery.

Major W. Lloyd-Jones, D.S.O., late The Middlesex Regiment.

Captain E. H. O. Bailey, R.E.M.E.

Major G. Brinley Ayre, The Middlesex Regiment (D.C.O.).

Lieut.-Colonel B. J. Leech, The Royal Northumberland Fusiliers.

Captain J. H. Laing, late The Nigeria Regiment and The Royal Sussex Regiment.

Captain K. L. Taggart, Royal Engineers.

Major T. Doolan, R.A.S.C.

Captain D. A. B. Duke, The Black Watch. what couldn't W. W. I mandred from

Captain H. C. Pincher, R.A.S.C.

Major M. R. P. Varma, The Dogra Regiment, I.A.

Captain E. G. C. Beckwith, T.D., T.A.R.O.

Major P. M. J. Harrison, M.C., The Royal Sussex Regiment, T.A.

Captain R. H. Collins, M.C., The Duke of Cornwall's Light Infantry.

Captain G. F. D. Long, M.C., Royal Artillery.

Major J. A. Cross, The Lancashire Fusiliers.

AIR FORCE

Flight Lieutenant J. R. Willis, R.A.F.

Squadron Leader J. H. Hunter-Tod, B.A., D.C.Ae.

Flying Officer J. B. Foden, R.A.F.

Squadron Leader P. Caddy, R.A.F.

Squadron Leader R. R. Chapman, R.A.F.

Flight Lieutenant A. F. Crane, R.A.F.

Squadron Leader E. Webley, R.A.F.

Squadron Leader E. Mortimer, R.A.F.

Flying Officer M. D. Wright, R.A.F. Regiment.

The Rev. J. E. Robinson, Officiating Chaplain, R.A.F.

Flight Lieutenant D. R. George, R.A.F.

Flight Lieutenant C. McI. Cassels, R.A.F.

Air Commodore H. F. Fuller, C.B., C.B.E.

Group Captain R. Sorel-Cameron, C.B.E., A.F.C., R.A.F.

Squadron Leader F. D. S. Scott-Malden, D.S.O., D.F.C., R.A.F.

Flight Lieutenant J. B. Cowton, R.A.F.

Squadron Leader A. E. Bull, R.A.F.

Flight Lieutenant R. J. Saker, R.A.F.

Squadron Leader R. Munns, D.F.C., R.A.F.

Flight Lieutenant M. G. Baker, R.A.F.

Wing Commander G. L. S. Griffith-Jones, R.A.F.

PRIZE MEMBERSHIP

On the recommendation of the Commandant, Royal Air Force College, Cranwell, the following officer has been awarded five years' free membership of the Institution:

Pilot Officer R. T. McMullen.

COVENANTED SUBSCRIPTIONS

The Council hope that many more Members will support the Scheme for Covenanted Subscriptions, details of which have been circulated to all members.

This materially assists the Institution because it enables Income Tax at the full current rate to be reclaimed on each subscription.

To date, there are 1,536 Annual and 776 Life Covenanted Members.

Any Member who has not received his copy of the Scheme or who requires new forms is requested to communicate with the Secretary.

LIAISON OFFICERS

With the object of making the facilities afforded by membership of the Institution better known to the Services, the Council have invited the principal Commands at Home and Overseas to nominate Liaison Officers.

It is hoped that the Liaison Officers will be able to suggest, from time to time, ways in which the Institution can be of greater value to the serving officer.

Liaison Officers are provided with Particulars of the Institution and forms to enable them to enrol members without further formality.

The following is a list of officers who have been nominated as Liaison Officers, and the Commands or Establishments they represent:—

Establishment or Command	Name
Combined Operations Headquarters	LieutColonel R. Montague-Jones.
Combined Operations Centre	LieutColonel R. G. Hewitt, D.S.O.
Joint Services Staff College	Major P. E. C. Tuckey.

	RO	YAL NAVY
Home Fleet	 	Captain H. W. Biggs, D.S.O., R.N.
Flag Officer Air (Home)	 ***	Commander R. C. Haskett-Smith, D.S.O., R.N.
R.N. College, Greenwich	 	Lieutenant-Commander F. E. Ashmead-Bartlett,

SECRETARY'S NOTES

Flag Officer, Scotland and Ireland.	Northern	Commander J. M. Rowland, D.S.O., R.N.
H.M.S. "Excellent"		Captain F. R. Twiss, D.S.C., R.N.
H.M.S. " Dryad "	***	Lieutenant-Commander V. N. Graves, D.S.C., R.N.
Flag Officer, Submarines		Captain B. W. Taylor, D.S.C., R.N.
Reserve Fleet		Commander G. F. Blaxland, O.B.E., R.N.
R.N. Barracks, Chatham		
R.N. Barracks, Devonport		Lieutenant-Commander H. H. Dannreuther, R.N.
R.N. Barracks, Portsmouth		Lieutenant-Commander D. J. Godden, R.N.
R.M. Barracks, Eastney	D.SO.D	Captain J. L. Carter, R.M.
R.M. Barracks, Plymouth		LieutColonel J. P. Honnor, R.M.
		ARMY
Anti-Aircraft Command		LieutColonel A. J. C. Block, D.S.O., R.A.
Eastern Command		LieutColonel C. T. W. Hill.
Northern Command		LieutColonel C. M. F. Deakin.
Scottish Command		LieutColonel G. M. Forteath, D.S.O., M.B.E.
Western Command		Major J. S. Freeland.
Southern Command		Lient Colonel F W I Grimshaw
Northern Ireland District		Major J. S. Campbell, R.A.
British Troops in Austria		LieutColonel L. H. Spicer.
B.A.O.R	ALTERIAN)	LieutColonel S. R. M. Hamblin.
Far East Land Forces		Major R. L. Barber.
Headquarters, East Africa Con	nmand	Major E. D. Bevan, O.B.E.
0, 00 1 0 1 1		at the at a trace we be

ROYAL AIR FORCE

... Colonel M. St. J. Oswald, D.S.O., M.C., R.A.

M

Ro

Con

(37

ma

Bomber Command		Wing Commander R. D. Stubbs.
Fighter Command		Squadron Leader F. W. Dowling.
Coastal Command		Group Captain M. F. D. Williams, D.S.O.
Flying Training Command		Wing Commander C. G. Milne, D.F.C.
Technical Training Command	10	Group Captain C. W. Dicken, C.B.E.
Transport Command		Wing Commander C. V. Winn, D.S.O., O.B.E., D.F.C.
Maintenance Command		Group Captain J. H. S. Richards.
Far East Air Force		Wing Commander J. A. Crockett.
Home Command		Air Commodore T. B. Prickman, C.B.E.
Headquarters Rhodesian Air Trainin	ng	Squadron Leader K. J. Sewell, A.F.C., D.F.M.
Group		

TRENCH GASCOIGNE PRIZE ESSAY COMPETITION, 1950

The Council, having received the reports of the Referees, have decided to award the First Prize of 30 Guineas, together with the Gold Medal of the Institution to Major W. G. F. Jackson, M.C., R.E.

A Second Prize of 10 Guineas is awarded to Commander R. C. P. Wainwright, D.S.C., R.N.

The following Essays were received:-

"Through weakness to strength."

"Non recuso laborem."

" Divide and fall."

Staff College, Camberley

- "Toujours pret."
 - "Toujours pret."
 "Not farewell, but fare forward, voyagers."
 - "There must not be a balance of power, but a community of power,
 - "Master of none."
 - " Divide et Impera."
- "How then will thou . . . trust on Egypt for chariots and horsemen?"
 - "Legem non habet necessitas."
 - " Mariage de convenance."
 - "Who is thy neighbour?"
 - "The test of sanity is not the normality of the method but the reasonableness of the discovery." A transferred by how age to the gut a sold award of the
 - "Experto crede."
 - "Nam tua res agitur, paries cum proximus ardet." "Labor ipse voluptas."
- "Persevere."

T,

E.

B.E.,

award

Major

vright,

- "No easy hopes or lies shall bring us to our goal." "In equilibrio."
 "Deeds not words."

 - "E pluribus unum."
 - "Festina lente."
- "Ronces valles." Politicary and about a supplied to be part of the supplied and the supplied to be supplied to be supplied to the supplied to be supplined to be supplied to be supplied to be supplied to be supplied t

TRENCH GASCOIGNE PRIZE ESSAY COMPETITION, 1951

Particulars of this competition will be found in the leaflet in this Journal.

Museum will give a better to the Sec MUSEUM Means of the Means of the Means

add he medically long estimate and at ADDITIONS and all I " amount ended to got

A Sabretache as worn by officers of the 13th Hussars in 1900 (9494). Given by Lieut.-Colonel L. H. Torin, M.C.

The full-dress Uniform of a Lieut.-Colonel, Royal Army Pay Corps (1914 pattern) (9495). Given by Lieut-Colonel F. A. Woods.

The Uniform and Accourrements of Captain E. Altham, C.B., R.N. (9496). Given by Mrs. J. Altham.

A Sabretache as worn by the officers of the North Irish Division, Royal Artillery Militia (9497). Given by Colonel C. F. Fleming, D.L.

The Biro Fountain Pen with which Mr. Winston Churchill annotated the first volume of The Second World War (9498). Given by the Miles-Martin Pen Co., Ltd.

A Model of the Sea Hornet and the Sea Vampire aircraft, of the type used by the Royal Navy (9499,9500). Given by the De Havilland Aircraft Co., Ltd.

LOANS

A Shell of Japanese manufacture which penetrated and lodged in H.M.S. "Amethyst" when she was under fire from the Chinese Communists in April, 1949 (3709). Lent by Commander J. S. Kerans, D.S.O., R.N.

A Japanese Sword surrendered to Admiral The Lord Louis Mountbatten, G.C.V.O., K.C.B. D.S.O., at the time of the surrender of the Japanese on 12th September, 1945 (3710). Lent by Lieut.-Colonel R. F. F. Gillespie.

JOURNAL

Members are invited to offer suitable contributions for the JOURNAL. Confidential matter cannot be used, but there is ample scope for professional articles which contain useful lessons of the War; also contributions of a general Service character, such as

Strategic Principles, Command and Leadership, Morale, Staff Work, Naval, Military and Air Force History, Customs and Traditions.

The Editor is authorized to receive articles from serving officers and, if found suitable, to obtain permission for their publication from the appropriate Service Department.

Army Officers are reminded that such articles must be accompanied by the written approval of the author's Commanding Officer.

REQUEST FOR BACK NUMBERS

The Editor will be grateful if Members who have finished with them will return copies of the Journal for August, 1942 and February and August, 1949.

CHANGES OF ADDRESS

Members are particularly requested to notify any change of address which will affect the dispatch of the JOURNAL.

Naval Officers are strongly advised to keep the Institution informed of their address, as JOURNALS sent to them via C.W. Branch of the Admiralty are invariably greatly delayed.

CHRISTMAS CARDS

Owing to the big demand on Type B cards this year it was not possible to satisfy the later orders. Type B cards are available every year and Members may place a standing order if they so desire.

LECTURE

On Friday, 30th March, 1951, at 3.0 p.m. Mr. James Laver of the Victoria and Albert Museum will give a lecture to the Society for Army Historical Research on "The Meaning of Military Uniforms." This lecture will be held in the theatre and Members of the Institution are cordially invited.

when the was notice for over the Cales Congression in Arch 1924 1956. Lept by

meets inscope of the War; also multibutions of a grown Service at another party

A Salastacian to war or the shorts of the North Iriah Orbeit

Royal Stanffores, 6200, 6200, by the Philippined Assault Co. 120.

and

able,

ritten

copies

affect

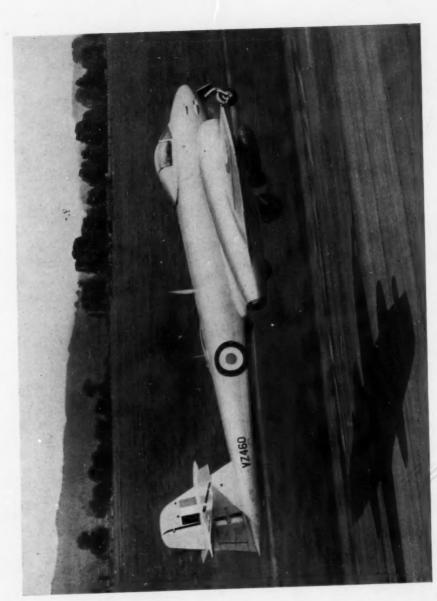
idress, greatly

sfy the anding

Albert Mean-of the

A Sh when the Comment A 14 K-C-tu-12 (1710). A

Memt Suiter on Beeful less



THE GLOSTER METEOR 8

th his to all most of m

as is C partl E at the gh fin in fin w

THE JOURNAL

of the

Royal United Service Institution

Vol. XCVI.

THE GLOSTER METEOR &

FEBRUARY, 1951.

No. 581.

THE INTERNATIONAL SITUATION IN EUROPE

By Mr. SEBASTIAN HAFFNER

On Wednesday, 13th December, 1950

MAJOR-GENERAL L. O. LYNE, C.B., D.S.O., in the Chair

THE SECRETARY: It had been arranged that Lord Ismay would take the Chair at this lecture, but his presence has been urgently required elsewhere, and General Lyne has very kindly stepped into the breach at short notice.

THE CHAIRMAN: I am not going to say anything now except to introduce Mr. Haffner to you. Mr. Sebastian Haffner is Diplomatic Correspondent of the Observer. He is going to talk to us about the international situation in Europe, and whatever we may feel about affairs in other parts of the World, I think we all realize that the key to the future must very largely be still in Europe. Therefore we are all glad to have the opportunity of hearing someone who has seen at first-hand, as Mr. Haffner has, events of recent moment in Western Europe.

LECTURE

Y subject is vast and my time and yours is limited, so I have selected ten points which do not by any means exhaust the subject, but which seem to be of particular importance at this moment. I shall number my points as I go along so that you can keep track of the argument and know how much more is to come!

WESTERN EUROPE'S POSITION IN THE COLD WAR

My first point, which I do not wish to labour, has already been made by the Chairman; namely, that Western Europe is obviously the key to victory in the present Cold War. It is, of course, true that this political struggle between Russia and America is World wide and that there are many other important fronts. But there is only one theatre where victory can be decisive, and that is Western Europe. Even if, for instance—though God forbid—the whole of Asia should at one time or another be lost, it would not necessarily be the end of it, because to develop Asia, to make the great Countries there into real modern Powers, to give their land power mobility and to add sea and air power to it, is a task for one, or more likely two generations. During that time much may happen. Western Europe, on the other hand, is now fully developed with something like two hundred million people who are fully literate, and it has the second most developed industries in the World. If the industrial resources of Western Europe were added to those of Russia I think the future of the West would be very seriously in doubt. But if the resources of a fully recovered Western Europe were added to the potential of Great Britain and America, we would be in a position in which we have never been since 1945, namely, we would

be able to deal with Russia from a position of great strength, and we might possibly get a settlement which would provide real security and lasting peace. Here, then, is the one absolutely decisive area, and both sides are aware of that.

RUSSIA

From this develops my second point: that the military menace of Russia to Western Europe is real—far more real than it has seemed in the last few years. Against this opinion an argument is sometimes put forward. Some people say that Russia has been in a militarily superior position in Europe all the time since the end of the War. She has not attacked, so why should she attack now? To this I think there are three possible answers.

The first is that Russia may have been deterred from starting hostilities by the American monopoly of the atomic bomb. As we all know, that monopoly is now a fast wasting asset since Russia, in one way or another, has got the secret of atomic energy.

The second reason why Russia has not moved her Army since 1945 is probably a very simple one, namely exhaustion. Stalin is credited with the saying that it is impossible for any nation to start a new war at once after one war is over. He may or may not really have said it, but it certainly is a thought that makes good sense. Now, however, five years have passed since the end of the War. The exhaustion is passing also, and with every year that passes it becomes more possible for Russia again to use the military superiority which she evidently has.

The third reason for the changed situation which seems to me to be the most plausible, is this. I think there is every evidence that in 1945 and 1946 Russia believed—and had quite good reason to believe—that she would conquer all Europe without having to fire a shot. At that time, it looked as though America was withdrawing from Europe, if not politically at least militarily; the American armies which together with the British armies had conquered Western Europe in 1943-45, were moved out of Europe in record time. At the same time, there was the economic post-war misery which gave wide opportunities to Communist propaganda. The Communist Parties were very well organized and, as you will remember, sat in most European Governments at the time—in France, Italy and elsewhere. The Russians had very good reason to think Europe would fall into their lap without their having to do anything. This hope was disappointed by the Marshall Plan and later by other developments, and by now I think the Russians must have become convinced that their chance of conquering Western Europe by purely political means has become very small indeed.

In the last two years or so, Western Europe has politically been consolidated at a very fair pace, and it does not now seem likely that anything like the Prague coup of 1948 could be repeated in Paris, or in Bonn, or anywhere else in Western Europe. Faced with this failure of their political hopes the Russians may very well draw the conclusion that they must either give up their designs on Western Europe or take the struggle to the military field; and it would be extremely optimistic and irresponsible to take for granted that they will not make the latter choice. There is one rather sinister fact which gives point to these perhaps speculative deliberations: since the beginning of 1949 Russia has definitely begun a new rearmament. Russian demobilization has never been as complete as it was here or in America. But in the last two years evidence of a real Russian rearmament drive has been accumulating, and it has now become too strong not to take counter measures. These counter

measures might profitably have been taken long ago, but there we are. They have not been taken to any large extent, and this brings me to the third point, namely that the defence of Western Europe is at the present moment largely unreal.

THE DEFENCE OF WESTERN EUROPE

Here again I must perhaps repeat the familiar. One has to take into consideration an argument which is heard more often in America than here—namely, that the American atomic bomb superiority is a sufficient deterrent to any attack on Western Europe. I think the best answer to that argument is to listen to what the Europeans have to say to it: very few of them take any great encouragement from it.

The atomic bomb may or may not be an effective deterrent. But once it fails to deter and an attack does take place, it certainly is not an effective defence. I sometimes feel that America might lose a third World War through over-reliance on the atomic bomb, just as the French lost the last war by over-reliance on the Maginot Line. It is always a very great danger to put one's faith in one particular weapon, however dreadful it may be, and to think that the mere deterrent effect of it is enough to make sure that it will never be put to the test. The time when American atomic superiority is still a deterrent is in any case fading quite fast—and probably faster than any substitute for it is being built up.

Of course, some steps towards providing Western Europe with another and more real defence have been taken. There are the provisions of the Atlantic Treaty, but so far we have not gone very far to put them into practice. There are a great number of committees and paper plans, but, as we know, very few divisions and air wings.

Some Major Obstacles

It is perhaps worth going a little into the reasons for this, which brings me to the fourth point. There are three major obstacles which stand in the way of building up an effective defence in Western Europe.

The first is the time factor. The time which we have lost may perhaps be a little too much already. It could be said that we are now in a position where we have either to be content with building up a mere token defence—which is not the answer to our problem—or else Russia will make a preventive war and march to the Channel before we have anything ready that could stop her. I think there is no absolutely conclusive answer to that except that we have no alternative but to try our best. The mere fact that this time problem exists has a rather paralysing effect. There is always the lurking temptation to write off Western Europe—to say: We cannot do anything about Europe anyhow, so let us make sure we are defended at home and do not let us send our armies to the Continent only to have to worry again about how to get them out later. It is a very tempting thought, but one which leaves out of account the chief and basic factor of the whole situation—that unless Western Europe is saved we ourselves will be in very great danger of losing our own independence and power and freedom of action.

I can, perhaps, limit myself to talking about the British position. In 1940 Britain survived the fall of the Continent with flying colours, but if in 1940 the rockets and the Schnorkel submarines had existed, the least one could say is that our problems would have been very much bigger—and they were large enough as it was. I think it is not unrealistic or unduly defeatist to say that though Britain might once more just survive such a contingency, she would probably this time have to invest practically the whole of her war effort in the mere task of survival: in bringing convoys here, in evacuating people and factories, in building up an enormous

air defence against rockets, and so on. And that is not a particularly desirable prospect.

The second factor which stands in the way of building up a defence for Western Europe is Continental morale. It is difficult to talk quite frankly here, because we are, of course, going over delicate ground. But I think without giving offence to any of our continental Allies it is fair to state that they have all suffered a major national defeat during the last ten years, and this kind of experience leaves marks and takes time to overcome. France to-day, in spite of much good that has happened in the last few years, is not in a state of national self-confidence and unity. Germany, of course, in contrast to France, gave a fairly terrifying performance during the last war, and if she could give the same performance on our side we would be very content. However, it can be taken too much for granted that such a performance can be repeated at will and at short intervals. We all made a great mistake in thinking before the last war that the French would be able to fight as they had fought in the 1914-18 War, and we failed to realize that the effects of their losses and experiences in 1914-18 made it impossible for them to repeat that performance, even after twenty years. Germany made her enormous effort and suffered her enormous defeat only five years ago. If one wants to get either the French or the Germans to play a full part, one has to nurse not only their physique but also their morale very carefully indeed, which presents difficult problems.

This leads me to the third major obstacle in the way of West European defence, which is the lack of effective unity. The Western Europeans have been facing each other in arms until five years ago, and it is not easy for them to forget that. It is, perhaps, more difficult for them than it is for the British and Americans, insular by nature and taking a more aloof and less emotional attitude.

However, I have said all this in order to enumerate the obstacles which must be overcome if we are to get anywhere, and not with the intention of inferring that they cannot be overcome, and this leads me to my fifth point. I do not think it is a sound proposition to try to defend Western Europe without the Western Europeans, and that means all the Western Europeans, in particular the French and the Germans.

Here I have to be rather careful, because one can overstate a sound case in this respect. It would probably not be absolutely impossible to defend Western Europe without the Western Europeans. Let us take a theoretical case, and imagine that war had broken out between Britain and America on the one side and Russia on the other when the Germans surrendered on 7th May, 1945. If that had happened I am sure the forces under General Eisenhower and Field-Marshal Alexander would have given a very good account of themselves, and Western Europe would not have had to worry too much about being effectively defended even though there were not many continental Western Europeans on the western side at that date, but only very strong British and American forces and a small French army added to them. It is thinkable-just thinkable-that something of that kind could be repeated, but I have only to state the possibility to make you all feel that it is a very unnatural and artificial possibility. It might, at the very worst, be preferable to writing off the Continent, which would come very near to committing suicide, but we all hope that it need not come to that. Indeed, it would be psychologically impossible to make Britain and America shoulder European defence alone so long as there is any chance of the Continentals making their natural contribution to their own defence.

FRANCE AND GERMANY

That, of course, brings us to the problem which is so very pressing just now, and that is how to bring Germany and France into Western European defence.

I should like to stress: Germany and France. Until a short time ago most people talked as if one could leave Germany out. Service people always knew Germany would have to be brought in if anything effective was to be built up, but public opinion did not endorse that. Now the trend is in the opposite direction. Because the French are being difficult, and because in the end they may be the weaker of the two, some people seem inclined to say, "Let us go ahead with the Germans and let the French see where they stand." That is equally wrong. Germany, without France or against France, can never provide an effective defence of Western Europe. Not only does France occupy the base line of any Western European defence; not only has France at the moment somewhat more advanced armed forces and perhaps a stronger resolve to do something for her own defence, but the main argument is that if we went ahead with Germany and without France we would run the very serious risk of putting France into the opposite camp. France, as we all know, has a very strong Communist Party, and she has a very strong and not unjustifiable distrust of Germany. That distrust would be positively enhanced if the Germans were armed over the protests of the French or in preference to the French. There would be a very strong chance of the Communists and the more old-fashioned nationalists joining with each other and taking France into a position which would be extremely awkward for us, and would go a long way towards cancelling out any arrangements we might make. I think, therefore, that it is absolutely essential, in spite of all the difficulties and in spite of all the delays, to try to get France and Germany to come along together and to build them into one West European defence framework.

THE FRENCH POINT OF VIEW

I have taken two points together here, and I therefore come now to my seventh point. I want to indicate where the real difference between France and Germany lies and here again I am entering controversial ground. I do not think the real problem—though it is often put forward as such—is French tear of new German aggression against France. In the distant future that cannot be ruled out, but it is not a real danger in any foreseeable time; and I do not think the French, who are very intelligent people, think that it is a very real danger. German rearmament would take place within the framework of the Atlantic Treaty, and although the Germans might, in time, develop something like an independent Command under an independent Government, they would still, for equipment and supplies and so on, be heavily dependent on Britain and America. As long as they are dependent in that way they cannot turn against France without committing suicide.

That, I think, is not the problem. The real problem, which is talked about in somewhat more hushed tones but with far more sincerity, is that the French fear the Germans may pull them into a still avoidable war with Russia; and there is, of course, something in this. The main difference between France and Germany at the moment—as I see it, at any rate—is that France, curious as this may sound, is a fairly satisfied Country and Germany is a highly dissatisfied Country.

The French, although the last war was a very harrowing experience for them, did not come out of it too badly. They have at the moment got all they want. They have all their territory back, with the Saar gained on top of it. Their foreign relations are very satisfactory as an Ally of Britain and America. Again, their fear of Germany, which up to 1945, was their greatest preoccupation of all, has more or less vanished for the time being. Instead of a powerful neighbour, they have a

weakened and divided neighbour. Germany was always overtowering. Western Germany, by comparison, presents a much easier problem.

Instead of that there is now, of course, the fear of Russia, but the Frenchperhaps understandably in their position, and with a little wishful thinking-feel that the Russian danger is not quite as immediate as all that. It is not absolutely certain, they feel, that the Russians cannot be placated in one way or another or that time, at any rate, cannot be bought from them by being subtle and diplomatic. Certainly the French have no interest in changing the present state of affairs. If they could have an assurance that the Russians would stop where they are and not go beyond the Elbe they would be quite happy, and this is understandable from their point of view. The French, as French, can have no interest in Germany being reunited, and later perhaps getting back her Eastern Provinces, and becoming once again very much stronger than France. They have a certain interest in the Eastern European Countries-Poland, Czechoslovakia, Roumania, who were once their clients and friends, becoming more independent again, but that is a relatively minor interest. When all is said and done, therefore, the best that the French could wish for would be a settlement with Russia which made them feel that the Russians would not go further than they have gone, but which for the rest would leave things more or less as they now are.

I hope you understand that I am not saying this in any anti-French spirit. I am trying to understand how it feels at the moment to stand in that particular position with the particular memories and preoccupations of Frenchmen. If we here were Frenchmen we should probably think on similar lines.

THE GERMAN OUTLOOK

Now let us look at the German side of the matter. The Germans have two major grievances, and again I wish to make it quite clear that I am not speaking in any anti-German spirit. I feel that we ought to make an attempt to put ourselves honestly in the shoes of the Germans and try to imagine how it would feel if we were where they are. One of their grievances is that they are divided, and the other is that they have lost their Eastern Provinces which look remote from here but are very, very big pieces of territory indeed. Some ten to twelve million people had to leave those areas, most of whom are still alive and want to go back there one day. Very powerful incentives exist therefore for the Germans to change the present state of affairs which the French want to preserve.

I would not go so far as to say that they are incentives to go to war now. At this moment, I think the Germans are as much afraid of war as anyone, perhaps even more so, because they would be the first people in the path of any war and they are the most defenceless of all. But if they are in some way or other rearmed, if they become part of a strong coalition which can look after the interests of its members, the temptation to get some of their own back, even—if need be—at the risk of having to fight for it, would probably become fairly strong. The French know that, because they know the Germans very well, and they do not lack the imagination to feel that they themselves would feel that way if they were Germans. Here is a very real difference, and as long as this difference exists it will not be easy to make real progress in uniting Germany and France in a common defence coalition.

WESTERN EUROPEAN FEDERAL UNION

There is one idea which seems at first sight to overcome all that, and that is the idea of Western European Federal Union. Here I come to my eighth point. While

I do not think this idea is the real solution to our problem, I do not overlook its attractions. First of all, it is an ideal, and there are not very many ideals current nowadays. Every ideal creates its own idealists. It creates people who are ready to go all out to fight for it and to sacrifice themselves for it. At the moment Western Europe is in a somewhat exhausted and tired state spiritually and could do with a little idealism. Nevertheless, I do not think it is a solution to our special problem, for the following reasons.

First of all, the full implications of Federal Union have not been thought out by most of its protagonists. If Western Europe, with or without Great Britain (I leave that question aside for the moment), were to form a real Federal Union like the United States of America or Switzerland, that would mean there would be one State. There would have to be free migration inside the territory of that State. It would have to be possible for people to mix with one another and to go where they wanted. In practice, this would mean German and Italian migration into France, because Germany and Italy are over-populated Countries with much unemployment and a lot of landless peasants. France is not so highly populated and has certain thinly populated areas, especially in the South-West, to which these people would be attracted. There would be a trek to the West, rather like that which took place in the United States in the XIXth Century. Whenever one puts this to Frenchmen, they show a rather puzzled expression, and one can see that this is not at all what they want to bring about.

There are other difficulties. There is language, for instance. I know that the American melting-pot made one nation of people from every European Country, but they had the English language which all had to learn. It is not so easy to imagine Europeans all learning the same language in their own Continent.

Then there is the difference in Governments. There would be the great difficulty of mixing people of different nationalities and different political traditions in high Government posts.

In the end, however, what really clinches the issue in my opinion is that Federation does not in itself overcome divided interests, such as those which I have outlined, but only transfers them to a different level of argument. Before Federation all these difficulties are problems of foreign policy—matters for ministers and diplomats to argue and agree about. After Federation they become problems of internal politics—matters for political propaganda and election campaigns and lobbying. I do not think anything would be gained thereby. Indeed, as I see it, there is a very big danger that if these deep-rooted national divergencies are transferred from the plane of diplomacy to the plane of politics, where fighting takes place with less elegant weapons, they may become poisoned. Emotions will play a greater part in them, and it will be more difficult to do what has to be done in order to overcome those differences in interests which cannot for the time being be completely abolished.

INTERMEDIATE SOLUTIONS

I hope now to say something positive after describing all these difficulties, and I come here to my ninth point. We can envisage certain possibilities—not of permanent solutions but of intermediate solutions—which would allow of some immediate progress.

One is to do what was intended up to this Summer, and this still makes quite a lot of sense: that is to start with the rearmament of the twelve Atlantic Countries—

which means in the first place America, Britain and France—and to build up their defence to a much higher degree of strength before we arm the Western Germans. I am quite clear that it is not an ideal solution; but ideal solutions are not always the best first steps when starting as we do, almost from scratch. There is a very solid argument that the existing arms are not enough to go round even amongst ourselves, and that for the next year or two we cannot have more divisions in Germany by having some of them composed of Germans, because arms and not manpower are the limiting factors.

I come back to those reminiscences to which I referred a little earlier, when I said that at one time Western Europe was effectively (though somewhat unnaturally) defended by the British and Americans almost alone. I do not think that it ought to be repeated, but the memory of it should give us hope that even within the Atlantic framework something quite effective could be done in our present position.

There would be two diplomatic advantages. First, the French would have acquired a far greater feeling of self-assurance if and when we come to arming the Germans, and this would help to make German rearmament more acceptable to them. For if they are at present so passionately opposed to the rearming of the Germans, it is not from a feeling of arrogance. It is from a feeling of insecurity. They would be more likely to accept German rearmament if they felt a little stronger and a little more sure of themselves.

The second advantage is that such a solution would give us a little more time in which to try to promote German unity by political means, thus reducing German grievances before we rearm them. Here we are, admittedly, on very speculative ground. I would not for one moment rely on the possibility of reuniting Germany by political action, unless at the same time there was the strongest possible Atlantic rearmament in the background. But with such rearmament in the background it would perhaps be a little rash to despair completely of the possibility of getting things moving in Germany by themselves. There is one fact in our favour which should not be overlooked: that the Western Germans have, on the whole, accepted their new State and the Eastern Germans have not. This makes it just imaginable that if the Russians and ourselves could at some stage negotiate some kind of mutual withdrawal-perhaps to the Rhine and the Oder or to the ports of the North Sea and the Baltic-it might not work out entirely unfavourably to us. We must not forget that there are forty-seven million Germans in Western Germany and only sixteen or seventeen million in Eastern Germany. If the military occupation forces were withdrawn and the possibility opened for political developments inside the present two Germanies, it might possibly work out in a quite acceptable manner. I would not put it much higher than that, but this chance is one possible advantage of Atlantic rearmament which should not be entirely written off in advance.

At the moment this is not the direction in which things are moving. The present plan is, as you know, that some German so-called combat teams of five to six thousand men, armed but without a High Command or General Staff of their own, will somehow be integrated into the Atlantic forces.

I am not particularly enthusiastic about this plan, and I do not know how it would work out: but it would have the advantage of breaking the present "log jam" of Atlantic rearmament and making things move. It might also have certain effects in Eastern Germany which might not be all to our disadvantage. If the Russians responded, as is quite likely, by arming more Eastern Germans, they might

have unfortunate experiences as a result. The Eastern German army which the Russians have built up—the so-called "People's Police"—is very limited in numbers. I think it consists of about 70,000 to 80,000 men¹. About a hundred or a hundred and fifty thousand is probably the limit to which the Russians could go as long as they want to keep that force reliable. If they go beyond that or introduce conscription, they will have to arm many, from their point of view, unreliable elements, and the consequences would be very difficult to predict. It might work more in our favour than in theirs.

There may be a third possibility which I put forward with great caution and very tentatively, and this would be to rearm the Germans and the French separately, in such a way that the French would be allowed to contract out of any definite obligations in respect of Germany. What is quite strong in France to-day is what is called her "neutralism." It comes from a feeling that the French, in their present state, might do not only themselves but also the Atlantic Community a better turn by developing a kind of armed neutrality. Those who hold this opinion argue that the only war in which the mass of the French people would really be in earnest over to-day would be a purely defensive national war in the event of a direct attack on French territory. There may be something in that. If it were made possible for the French to rearm in such a way that they stayed at home and made themselves as strong as possible there, with no obligation to fight unless they were attacked at homewith no obligations for Germany and no connection with possible German aspirations -this might calm many of their present fears. Whether it is a really desirable solution or not I do not know. I cannot judge the military consequences, but it appears to me that to have a really strong base behind the front with a kind of intact second army in the rear might, in certain circumstances, be an advantage. I do not want to press this point further.

Possible Grounds for Optimism

Whatever happens, we must be quite clear in our minds that we have one or two very critical years ahead. The Russians are not stupid. They know what is going on. They know that whether we arm the Germans now or do not, whether we put more divisions into Europe at this moment or do not, we shall be much stronger in two years than we are now, and it will then be a great deal more difficult for them to get what they want. They must be strongly tempted to start a war while we are unready. But they may still hesitate to do so, and there are a few grounds for very cautious optimism.

One thing we must never forget is that American atomic superiority, while lessening, is still very great at the present moment. It is very hard to tell what influence that has on the Russians, but it does seem to have *some* influence in view of the concentration of all their propaganda against the atomic bomb.

The second—slighter—ground for hope is that the Russians are still not very far advanced from the beginning of their new rearmament programme. This is a very slight ground for hope, because even so, their present state is considerably superior to ours; but there is this curious reluctance of people who work to a military time-table to move before everything is tied up and shipshape, so one cannot tell how this will work out.

¹ This figure compares with the 200,000 men quoted in *Defence in the Cold War*, published by the Royal Institute of International Affairs, December, 1950.

The third ground for hope, for what it is worth, is that the Russian leaders may find it a little more difficult than Hitler did to start their people on a clear war of conquest. They may have to deal with rather greater difficulties on their home front. One hears little that is authentic from Russia, of course, but the little one hears suggests that the mass of the people—and it would not be surprising—is still just as much under the influence of the last war as the French and the Germans are, and would be very averse from going to war again so soon unless absolutely forced to. It would take some persuading, but I do not put it beyond the people at the Kremlin to do that persuading, and I would not rely too much on this factor.

We can only hope one or other of these reasons will keep the Russians from marching in the next eighteen months. If they march, we shall be in for something very tough. If they do not march, what should be our aim?

CONCLUSION

Here is my last point. We should certainly not march on them when we are ready. I do not think it will be necessary if we ever really get ready, and I do not think it would serve our own best purposes. There is always the feeling, of course, "We have mobilized and made great sacrifices. Now let us get it over and done with"; but we should restrain that feeling. If we really get strong we will have a chance—though I would not say a certainty—to gain all we want from Russia by diplomatic means. If one looks over the diplomatic record of the Russians for the past twenty years, one finds that they have always had a very good and realistic estimate of the strength of their opponents. Whenever they found they were facing real strength they have drawn in their horns. We have seen that in their dealings with Hitler prior to 1941, and on a minor, local scale also in their more recent dealings with ourselves, such as over the blockade of Berlin. If and when the Atlantic Community and Western Europe reach a state of political unity and military preparedness, the chance for Russia to gain anything by an attack will disappear. There should then be a possibility of making a settlement with Russia by means of negotiation and bargaining under which she withdrew within her own frontiers and left Europe to its own devices. She would probably leave Communist Governments behind in Eastern Europe, but I have no doubt that once the Red Army had withdrawn those Communist Governments in Eastern Europe would have a very short life in office before them.

What we are really out to rebuild now in Europe, with great difficulty, is a new balance of power. We have always found during the last three centuries that lasting peace could only be built through a balance of power, and I think the great mistake we made during the last war was to forget this ancient wisdom. We destroyed the balance of power when we entirely disarmed Germany and left the field free for Russia. We have now to go to very considerable trouble to undo that mistake, to revive and strengthen our enemies of yesterday in order to restrain our possible enemies of to-day. We should be equally unwise if we were to fall into the opposite mistake of wishing to remove Russia from the balance of power in Europe. That would be very unwise. The Russians may have a truculent Government, as had the Germans. But every nation in Europe, however unpleasant its Government, performs a useful function, often against its own will, in helping to restrain other nations which might become too powerful unless this restraint were upon them. I do feel that if we get over our present difficulties—if we do create a position of strength we will be in a position to restore a balance of power without another war and another unconditional surrender, and thus return to the basis on which alone lasting peace in Europe can ever be achieved.

DISCUSSION

THE CHAIRMAN: The subject is now open for discussion.

COLONEL F. H. SMITH: I was interested in the matter of population. The Lecturer mentioned that the Germans were over-populated and the French under-populated, and that the Germans might prefer to settle in the South-West of France. Hitler gained power because of unemployment, and I understand he secured considerable support owing to his reorganization of manpower.

To-day we are shutting down the large German blast furnaces and there are 1,800,000 unemployed in Western Germany as compared with practically none in Eastern Germany where, under the Russians, the people are either on the land or in the Army. Is there not something that we might put forward to help the 1,800,000 Germans who are unemployed instead of shutting down their blast furnaces when we are so short of both manpower and munitions, both of which Western Germany could supply? What do you suggest?

THE LECTURER: The shutting down of the German factories has now ceased. The dismantling programme was brought to an end early this year, and I should be very surprised to hear that anything of the kind is still going on.

There is, however, this great problem of Western German over-population and unemployment at the present time. I do not think there is any single cure for it, but if one envisages the present frontiers of Germany it seems as though there must be German emigration.

Two different possibilities arise. Some of our own Dominions could probably help by taking Germans. I think Australia has a small programme, but it is very small indeed so far. Secondly, if German rearmament comes about, this will take up some of the unemployment. Whether the Atlantic rearmament programme by itself will give additional employment in German industry I cannot say, but it is quite likely to do so.

As to whether one should have arms production in Western Germany I am more doubtful for the very simple and crude reason that it is a bit near our front line. If we decided to produce arms and had everything staged for production in the Ruhr and by any mischance lost the first battle in a war with Russia, we should have made a present of it to the Russians. It would be preferable, therefore, to have arms production further back. However, I agree that German over-population and the steel problem should have a high priority in our present discussions.

MAJOR E. R. NANNEY WYNN: Would the Lecturer say something about Yugoslavia?

THE LECTURER: Yes. That is almost a subject for a separate lecture and I intentionally left out the whole complex because it would have taken me a very long way.

I personally think we ought to strengthen Yugoslavia. Everything we do should be done with some strings attached to it. We want to make it impossible for them to change sides once more. How this is to be done in detail I cannot suggest at the moment, though I have some ideas. On the other hand, I think, quite frankly, that a Communist but anti-Russian Yugoslavia is far more use to us in the present situation than an ideological liberal and monarchical Yugoslavia would be. Tito's defection has upset the Russians far more than they would have been by a return to the monarchy in Yugoslavia. In that case they would have lost a small country and nothing else; but now they have a real thorn in the side of their own system which will go on festering. As long as Tito demonstrates that one can be a Communist yet independent of Russia, there will always be a temptation among other Communist Governments to "go Tito," and we have already had some (admittedly unsuccessful) attempts in this direction.

I think in the present situation Yugoslavia is a far greater asset with Tito than without. What happens later is quite a different question. For the time being, therefore, we ought to support Tito, at the same time always making as sure as possible that Tito cannot return to the Russian fold, by keeping some of the sources of his strength fairly safely running through our hands.

GROUP CAPTAIN D. I. COOTE: You have given us a very good insight into the feelings of the French and also of the Western Germans. Could you say something about the feelings of the Eastern Germans? Have they accepted Communism under pressure or do they really like what they know of it? What do they feel would come out of a war? Would they gain or lose?

THE LECTURER: I cannot talk with the same knowledge about the Eastern Germans as about the Western Germans, for the simple reason that I have not been able to travel in Eastern Germany since the War. I only know what I have been told by those Eastern Germans I have met in Berlin or Western Germany, and the picture they give may be a little one-sided. Nevertheless, it seems fairly safe to say the Eastern Germans do not like what they know about Communism and have not so far accepted it. A good many of them conform in a rather depressed and apathetic way, just trying to live on, but there can be no question of their accepting it with the alacrity with which they accepted Hitler. It remains a foreign-imposed and very unpopular regime. I think it would have very little chance of survival once the Russians really withdrew. What will happen as long as the Russians stay there I do not know. There are very small beginnings of token resistance movements, but they do not amount to much and I do not think they ever will unless there is some chance of their being helped from outside. In the meantime, there is, as you all know, very extensive voluntary emigration from the Russian zone. It amounts to about twenty to twenty-five thousand people a month, which is a kind of plebiscite with the feet, after all.

LIEUT.-COLONEL C. GARSIA: Arising out of the last question, is there not a very large element of old Nazis who, though not really Communists at all, are prepared to throw in their lot with and reinforce the Communists? Are they not a great danger? Would the Lecturer say something about the danger of the Nazis calling themselves Communists but really remaining Nazis, and getting all the advantages of working with the Communists?

THE LECTURER: There are, of course, some old Nazis who have turned their coats and become Communists. On the whole, I am rather surprised at the extent to which Nazism as a real political religion has disappeared in Germany. What has not failed is nationalism. I still feel very strongly that the Germans would like, in certain respects, to get their own back and have their revenge on some people. But the more typical and crazy Nazi tenets—racialism and all that sort of thing—are curiously dead and seem to have collapsed as quickly as they grew up. Whether it was more or less a passing madness, or whether it will be resurrected later on I do not know.

I might almost say I have not met one—or at least only one—German who really still tried to defend the more definite Nazi ideological doctrines and ideas.

LIEUT.-COLONEL J. M. WHITE: It seems that in the old days British prestige played a great part in maintaining the balance of power. What is the opinion of the average German and of the German Government at Bonn of the present position of Britain—the strength of Britain and the resolution of our people?

THE LECTURER: It is difficult to answer that except in a general way. On the whole, during the first years of the War the Germans tended to underestimate the British, but later they possibly over-estimated them. After the War there was again a reaction, and a tendency to regard Britain as a mere appendix to America. I do not think the Germans have a very well-developed idea of Britain at the moment. They have been out of touch with things for a long time and they may have formed an idea which may be in need of correction. At present there is a curious expression in Germany—the Anglo-American—the composite personality of the British and the American. They treat them as one. That is a summary judgment which is perhaps in need of correction.

I could perhaps say that the old prestige of Britain has become rather diffused between Britain and America and now covers both. How all this will work out in the long run I do not pretend to know.

Captain A. B. Hurrell: We were told recently in a lecture here that the average German's attitude towards becoming a soldier was not a very favourable one. In fact, we were told that the average German dreaded the possibility of becoming a soldier, because the carrying of arms by Germans had been so besmirched by the Allies and because Germany had been proved to be a warmonger twice in a very short period. Would the Lecturer comment on the attitude of the German to becoming a soldier of the West as opposed to the opinion which was given to us?

THE LECTURER: It is very difficult in a case like this to speak of the average German because attitudes are different. I would say there are four groups. First, there are the old active officers and professional soldiers. They do not dislike the idea of taking up arms again, but they would like to have a kind of declaration of honour beforehand. If they got some kind of apology and were asked very politely to take up arms I think they would like it very much.

Then there are the ordinary conscript soldiers of the last war—the generation now about 25 to 35. They, I think, are generally rather tired of soldiering and would not like it again in any circumstances. Still, a good many of them would probably serve again if they had to.

Next there are the young people who hardly served at all in the last war. With them I think it would depend on the chance of having a victorious war. I think the ingrained qualities—if you like to put it that way—for soldiering are there. They would make good soldiers. But they would probably not like to join a losing cause or to be put up like ninepins to be knocked down. It is really a question of joining the big battalions.

My fourth group is one which I think would serve unconditionally—the despairing refugees who have lost everything; the unemployed people who would like to have a roof over their heads and something to eat and something to put on their backs—and if it were an American uniform it would be all the better, because it means a certain amount of backing by a strong foreign Power and gives access to all kinds of nice things. I think you could always get a kind of Landsknecht army in Germany of about 150 to 200 thousand, but that is not really what we want of course.

THE CHAIRMAN

I am sure you will agree with me that we have listened to a most intriguing talk on the problems of Europe, and I have been particularly interested in the simple way in which Mr. Haffner has put across this very complex subject, and also in the fairness of the views which he has given. He put to you some reasons why the Russian army should not invade Western Europe. I would like to give you two more possible reasons.

The first is this: Historically the Russians have not fought within recent years a successful aggressive war, and they do not appear to fight well outside their own Country. They fight magnificently, as any peasant people fights, in defence of their own Country, but when it comes to going outside Russia they do not appear to be quite so successful. They are quite unlike the Germans in this respect. In that I include what little personal experience I had of them in the last war. When I went very early into Berlin I was horrified, as I naturally regarded them as Allies, at the temporary breakdown of discipline in the Russian army there. It had been brought about by bad fighting qualities, specious promises about life in Berlin and a looseness of control. That is a very dangerous sign in any army, even in the fifth year of war. I suppose now one ought to regard it as an enheartening sign.

The other point I would like to make is this. Very early in the days when I was in Berlin I not unnaturally wished to talk over some of the fighting on the Eastern front with the Russian Commanders, and the Russians were then quite prepared to talk provided one stuck entirely to military affairs. I particularly wanted to talk to a senior officer in the corps which had done the hard fighting through Berlin because I thought it must have been absorbingly interesting street fighting. I had some difficulty in getting

into contact with a senior officer of a fighting formation. Finally, quite by chance, I did get into conversation with a senior staff officer who had been with the formations clearing the Tiergarten and the Chancellery area. We talked about this fighting, and he gave me some graphic descriptions of it. We then turned to other things and we discussed river crossings, of all good military subjects, and I said what a great feat the assault crossing of the Oder must have been. I went on to describe our own crossing of the Rhine, whereupon he looked at me in astonishment and said: "But it was easy for you, because the Russian troops were on the Eastern bank. We got there and you could not cross before." He was a senior officer, mark you, and had been told this and believed it. The reason why I make this point now is that if you tell a whopping big lie it does sometimes rebound on you adversely. Some of the propaganda which has been put across to the Russian army might have a most devastating effect on their morale and discipline if they are faced with a third war in Western Europe, and saw the Western European standards of living with their own eyes. All these things are perhaps favourable straws in the wind.

Finally, one more factor which also struck me in listening to this talk is the tremendously close interplay of every Service question and every question of defence in the World to-day with the political situation. When one listened to this absorbing account of the feelings of the people in the various Countries in Europe and lined this up with the problems of the Commander of the defence forces in Europe, I think one appreciated that whether he be General Eisenhower or anybody else he will have a full-time job.

It only remains on your behalf to offer most hearty thanks to Mr. Haffner for coming here to-day. (Applause).

GERMANY TO-DAY

By Major-General Ll. Wansbrough-Jones, C.B., C.B.E.
On Wednesday, 22nd November, 1950

AIR CHIEF MARSHAL SIR JAMES ROBB, K.C.B., K.B.E., D.S.O., D.F.C., A.F.C., in the Chair

THE CHAIRMAN: Gentlemen, we are going to be fortunate this afternoon in hearing a lecture on "Germany To-day" given to us by General Wansbrough-Jones. The knowledge of the present state of Germany and what its action in the future is likely to be, as you can imagine, is of major importance and concern to all of us in Western Europe. I know of no one better qualified to speak on these problems than our Lecturer to-day.

LECTURE

HE picture of Germany to-day requires a very broad canvas, for Germany consists of the Eastern or Communist-dominated Zone, Berlin, and the Western Zones or Federated Territories. I hope to try and portray the political, economic and financial scenes in each of these three areas and to draw your attention, naturally, to the Western Zones, in which we are particularly interested. I will try to do this from the German aspect and then conclude with a summary of our own point of view.

BACKGROUND

First of all, I should like to go back through history and trace the events which have led up to the situation to-day, starting with the Potsdam Agreement of 1945. This was prepared against a background of utter chaos. There was no German central or local administration, no organized transport, virtually no consumer goods, no coal or public utilities, and no organized distribution system for the essentials of life. The Potsdam Agreement set out the main principles for the control of Germany: first, disarmament, de-militarization, de-nazification and reparations; secondly, the granting of uniform treatment to the whole population and the treatment of Germany as one economic unit; thirdly, the decentralization of administration and the preparation for the eventual reconstruction of political life on a democratic basis.

The Control Council, then quadripartite and acting under the Potsdam Agreement, was the only government for Germany and it was centred in Berlin. It began to meet difficulties almost at once. There was agreement generally over what might be called the negative part of the policy, that is to say, de-militarization, denazification and disarmament, but it was clear even then that constructive measures must be taken urgently to rebuild the German economy, and here the Russians refused to agree to any proposals which aimed at the creation of a single economic unit. They also insisted on taking reparations out of current production, which was completely contrary to the Allied policy.

At the same time it became evident that the Russians and Western conception of democracy were utterly different. The Russians aimed, as usual, at the so-called People's Party which would become the single democratic party. The policy evolved would form the administration approved by that party, this being considered democratic. This was so different from the Western conception of democracy that it was obvious that an open split in the Control Council was bound to come sooner or later.

As soon as it became apparent that a creation of a single economic unit was impossible, the Americans made their offer to fuse their Zone for economic purposes with any other Western Zone. This offer was accepted by the United Kingdom and the bi-zonal arrangement came into effect on 1st January, 1947. This gave the Germans executive authority in certain economic matters, and the control of the economic policy was gradually transferred to them through the creation of an Economic Legislative Council.

The next major step was the currency reform in June, 1948. This was carried out tripartitely to check inflation. It was a very drastic and rough and ready operation and it extracted and destroyed nine-tenths of the inflated reichmarks and produced a new currency, the deutschmark, which has rapidly become sound and hard.

Through these years the economic position of the Western Zones was improving, though the Russians employed their usual tactics to impede recovery by attempting to influence the Social Democratic Party and form a Communist-dominated left-wing block, and also by infiltrating into the works councils. These efforts met with very little success because the appalling condition of the prisoners of war returning from Russia gave the lie to all Russian propaganda and intentions; because of the solid resistance of the Social Democrats and because of the very strong anti-Communist influence of the newly revived trade unions which were, and still are, receiving every support and encouragement from the Western Powers.

When, therefore, the split in the Council appeared, ostensibly over the extension of currency reform to Berlin, it caused no surprise; but it spelt the end for the time being of the plan for the creation of one democratic Germany, and it signified the beginning of the two Germanies, a puppet state in the East deprived of direct access to the industrial resources of the Western Zones, and the democratic states in the West deprived of access to the agricultural resources of the East.

The Berlin blockade followed the split in the Council, and the story needs no elaboration. Its effects were to show the people of Berlin and the World in general that the Western Powers could act quickly and resolutely. It also brought out the courage and solidarity of the Berliners, and I think it must have provided the Royal Air Force with valuable experience in bulk maintenance by air, which may well have caused the Russians to have second thoughts of the wisdom of their manœuvre.

The Russians ended the blockade in 1949, in the hope that we would call a halt to our efforts, then well advanced, for the setting up of the Western German Government. That is the background against which I would like to sketch in the political, economic and financial scenes in each of these three areas.

EASTERN GERMANY

The Russians have had a comparatively simple task in Eastern Germany. By keeping the standard of fiving low for all but the party bosses, by giving full power to the secret police, by introducing slave labour for the uranium mines and by perpetuating the system of concentration camps, they have succeeded in extorting so-called uranimous approval of the single lists of party candidates at the local elections, which are a travesty of democratic procedure. The pattern of Communist rule in the East is now well established. The Russians have also revived the spirit of mass hysteria and emotionalism in the youth of their Zone, and this is an evil, dangerous and portentous action. Cut off from the rest of the World, the young men and women in Eastern Germany have little or no means of learning the facts

of the problem and of obtaining any balanced views. It is to be feared that large numbers are unaware of the traps being set for them in the stirring up of mass emotion, and they fail to realize that they are being exploited for the purposes of Stalin's Communism. It is the Hitler technique all over again In this respect the Berlin rally at Whitsun must be regarded as successful. The Russians did what they said they were going to do, and no doubt they acquired some administrative experience in the exercise.

During the first years of Soviet occupation policy the Soviet sought to reduce the level of industry and the standard of living in the Eastern Zone to something approaching that in Russia. Sixty-five per cent. of Eastern Germany's industrial capacity was removed to Russia, and the dismantling of this plant was accompanied by the removal of raw materials and finished products. Also most factories producing basic materials were transferred to Soviet ownership without compensation. But the Western counter-blockade brought the realization that the whole of the economy of the Eastern Zone might collapse at a time when Western Germany was making rapid progress to recovery, and so in 1948 a measure of control was transferred to a Communist-controlled German economic administration, production plans were introduced, and Russia started to supply raw materials. This was followed by a currency reform and a two-year plan which brought about a fair measure of improvement. There is no doubt that since the inception of the two-year plan in 1948 progress has been steady and is likely to continue, and a five-year plan is now in preparation which is intended to bring the economy of Eastern Germany entirely within the Soviet orbit.

The financial situation of the Eastern Zone is sound. The total revenue in the current financial year is placed at about 13,000 million marks—that is, about £1,100 million compared with a proposed expenditure of about 100 million marks less. There is no unemployment problem in the Eastern Zone, although this in no way reflects sound economic planning; it is due solely to the fact that a larger number of workers is required to produce less than before the War. As an example, the East German iron and steel workers produce half the amount of their West German counterparts. The economy of the Eastern Zone has been affected by the removal of large quantities of railway material, and the rail transport system is now one of the weakest links in the economy. It is just capable of taking the loads placed upon it.

To the Russians the overall economic picture of Eastern Germany must be regarded as satisfactory. Since their occupation began they have obtained nearly £3,000 million worth of reparations in one form and another, and their latest agreement with the Eastern German Government should give them a further £1,000 million within the next fifteen years.

WESTERN BERLIN

I have already mentioned the effects of the blockade. During that period the Berliners had little to eat, scarcely any fuel for heating purposes, and electric power for two hours a day. The fact that they stuck these conditions was an act of faith in the Western Powers, and if the Allies had faltered the Berliners would have faltered too. The attitude now to the Allies is the same as it was then—rock steady and courageous. There is political harmony between the Magistrat and the Allied Commandatura and inter-party harmony on the German side is probably closer and better in Berlin than it is in Western Germany. I should add that although Military Government has disappeared from Western Germany it still exists in Berlin, but it

conforms to the principles set out in a "Statement of Principles" which is virtually Western Berlin's occupation statute.

Economically, the Berlin picture is a bad one. The cumulative effect of Allied bombing and Russian assault, together with the organized removal of plant and equipment while the Russians were in sole occupation, left Berlin, in the Autumn of 1945, with only about 10 per cent. of her former industrial capacity. The position was made more difficult by the city's loss of her former status as the capital of a united Germany. Berlin's pre-war development and economy was essentially that of a capital city paying for its requirements of food, raw materials and manufactured products by the administrative, banking, insurance and other similar services rendered to the rest of the Country. All these services disappeared on decentralization to the Laender Governments.

During the three years from 1945 to 1948, when recovery was slow for Germany, it was slower still for Berlin. Lack of outside financial support left her industry largely dependent on what out-of-date machinery the Russians had not removed, and what could be recovered from the ruins of her factories. The blockade brought industry to a virtual standstill and made rehabilitation impossible, except for a remarkable effort by which West Berlin's ruined power station was largely rebuilt to reduce dependence on Russian supplies.

When the blockade was lifted the hideous disparity between the economic position of Berlin and the rest of the Western Zones called for immediate action and plans to assist were developed, but the Russians and the German authorities in the Russian Zone had no wish to see Western Berlin any more prosperous than their own territory and did all they could to hinder the city's economic recovery. In normal circumstances, for instance, a great part of Berlin's food would be supplied from the surrounding country, which would also provide the market for her manufacturers. This trade is now drastically curtailed and the only alternative channel is the long restricted supply lines to the West, with the attendant increase in costs. The result is that Western Berlin to-day is not economically viable. It receives goods from the Federal Territories to nearly twice the value of those which it can return.

Nevertheless, industrial production has more than doubled during the last twelve months, and the last five months have shown a particularly marked improvement. Unemployment has dropped by 8,000 in the last six months and the number working short-time by 70,000; but these figures must be viewed against the total unemployment figure of 250,000, which is almost equivalent to the unemployment figure for Great Britain to-day, and also against the total volume of production, which is only about 35 per cent. of the pre-War figure. Efforts are still being made to expand and strengthen Western Berlin's markets, but their success depends upon further increases in Berlin's production which, although now double the previous year's figure, must be trebled to come into line with the recovery in the Western Zones.

The financial position of Western Berlin follows the pattern of its economy. Against an estimated expenditure of about 1,600 million deutschmarks this year the revenue is only expected to be about 900 million. The Federal Government has made substantial contributions towards this deficit and the Allies have made various contributions out of the counterpart funds. But this hand to mouth method of dealing with Berlin's finances is unsatisfactory, and this Summer an attempt was made to put the financial relationship between the Federal Government and Western Berlin on a more stable basis. Politically, it is inopportune to admit Berlin as a

twelfth land in the Federal Republic, but the Federal Government has arranged to take over the responsibilities of all those services for which it has also accepted responsibility from the Laender Governments, that is, occupation costs, pensions and social expenditure. This will not cover the entire budget deficit, and the Federal Government has also undertaken to make a fixed subsidy of 500 million deutschmarks yearly on the understanding that Berlin agrees to keep taxation at the same level as in the Western Zones. By this means the Federal Government believes that Berlin can balance its budget, but Berlin itself is a little doubtful about that.

WESTERN GERMANY

The task of the Occupying Powers in Western Germany has, naturally, been a more formidable one than that of the Russians in their own Zone. The object of the Occupying Powers has always been to develop "a going concern" in Western Germany built on the solid foundations of democracy and social justice. I have already mentioned the first step in this direction, which was currency reform. The second was the creation of the Federal Republic. This is founded on a Basic Law which, in June, 1948, was prepared by a Constituent Assembly directed by the Foreign Ministers to draft conditions:

"To enable the Germans to play their part in bringing to an end the present division of Germany, not by the reconstitution of a centralized Reich but by means of a federal form of government which adequately protects the rights of the respective states and which at the same time provides for adequate central authority and which guarantees the rights and freedom of the individual."

The normal conception of a federal state reserves to the centre foreign policy, finance and defence. Under the Basic Law, however, the division of powers between the Federal German Government and the Laender Governments provides that all powers not specifically mentioned in the Constitution shall be the responsibility of the Laender, and in these circumstances the Laender would have responsibility for police and defence. Further, the division of financial powers between the Federal Government and the Laender is so tied up as to make the Laender as far as possible financially independent of the Federation.

The establishment of the Federal Government was accompanied by the promulgation of the Occupation statute which transferred powers of government to the Republic and replaced the Military Governors by the High Commissioners. The Occupation Statute reserves powers in certain fields to the Occupation Authorities, and these powers include de-militarization, reparations, foreign affairs and foreign trade, the broad control of economic affairs, and all questions relating to the security and prestige of the Occupation Forces and the satisfaction of occupation costs. The result is that the powers which would normally be the responsibility of the centre are very much restricted, and the Federal Government's hands are tied. In fact, the Federal Government can at present exercise very little authority in those matters which, in the normal federal concept, would constitute its powers. The dislike of centralization, which appears to have prompted those who drafted the constitution to reduce the powers of the centre, has now rebounded by giving apparently excessive powers to the Laender.

Nevertheless, the Federal Government has a year of life behind it. The C.D.U.¹ Party, with support from small centre and right-wing parties, has a small majority over the Social Democrats; but in the Laender the political situation is not affected

¹ Christian Democratic Party.

by the Federal elections and so there the Federal Government faces strong and well-established Governments, most of which are controlled by the Social Democrats, or have their support. Recent elections have strengthened the S.P.D.² hand.

The greater part of the year has been given up to the actual establishment of the Federal administration, the formation of Departments of State and the Civil Service. Major political controversy has been avoided, and the Government's policy has been directed toward establishing itself in the confidence of the people, fighting Communist penetration and trying to persuade the Occupation Forces to lighten the burden of occupation. The questions of internal and external security, which are actively occupying the attention of the political parties, are now likely to evoke heavy and continuous criticism of the Government by the Social Democrats.

The economic recovery of Western Germany has been greatly influenced by two external factors. These are the restrictions placed by the Allies, for political and security reasons, on German industrial development, and the concurrent efforts to promote reconstruction and recovery in normal trade. The Prohibited and Limited Industries Agreement, which governs the industrial policy, places controls on all industries with a high potential use in war, such as armaments, steel, ship-building, synthetic oil and synthetic rubber. In addition, the Allied decision to break up concentrations of German economic power has created uncertainty about the future, particularly in such industries as coal, iron, steel and chemicals. The joint effect of all these actions on the German economy is very hard to assess, but it is, naturally, considerable because the specific intention was to alter the structure of the German economy, and prevent its development in undesirable directions.

On the other side of the picture, the efforts to promote economic recovery have been remarkable. American aid from Marshall Funds and other sources amounts to nearly 3,400 million dollars up to the present time, and British aid has been considerable during the same period. These funds have been largely spent on agricultural products and on products of commerce and industry: but the assistance goes further than this, because the proceeds from the sale of these imported goods, which are known as "counterpart funds," are also available for re-investment in the German economy.

It is safe to say that the present level of German economy would never have been achieved without the aid given by the Allies, but nevertheless the level of recovery must also depend upon the efforts of the inhabitants, and the advances made in Germany since the currency reform have been remarkable. Currency reform and the removal of the economic controls left over from the Nazi régime or imposed by the Allies at an earlier stage have led to the introduction of a free market economy which has permitted a very rapid rise in production. In the first six months following currency reform production increased by 50 per cent.; and there was a further 25 per cent. in the following year; at the end of September this year production was over 120 per cent. of the 1936 figure and now it has surpassed the level of 1938 when Hitler's armaments drive was well under way.

The production per head, however, is still below the 1939 figure, because of the influx of about 9,000,000 refugees into the Federal area. The volume of production is no sure guide to the general level of recovery, because the destruction of actual physical capital in Germany greatly exceeded similar destruction elsewhere, except possibly in certain areas of Russia, and the present capital wealth of the Federal area,

² Social Democratic Party.

although hard to assess, is only a fraction of what it was before the War. Until this has again been built up a much greater proportion of production must go to making good capital losses before we can get a fair comparison between 1936 and 1950.

The general improvement in the economic position of Western Germany has not come about without some very painful adjustments and a good deal of social injustice. Currency reform itself was indiscriminate in its efforts, and there were heavy losses to sections of the population least able to bear them. Prices have risen, and the reemergence of unemployment is a major problem. This state of affairs is the inevitable result of the changeover from a rigidly controlled to a free economy, but unemployment has proved a very difficult nut to crack and it continued to rise until the end of last Winter, when in March the figure was as much as 1,852,000. Since then, with the continuing expansion of the economy, a decline has set in and at mid-October the figure was down to 1,257,000: a reduction of about one third. Although at the moment the indications are that unemployment may decline still further, nevertheless the approach of the Winter, and the prospect of a slow-down of work in building and agriculture may, of course, mean slight increases. There are also slight indications that the rate of economic recovery may slow down. The chief symptoms of this tendency are firstly, shortages of skilled labour and the immobility of labour; secondly, coal production is not keeping pace with economic improvement; and, thirdly, there are prospective shortages of imported raw materials due to the rearmament programmes in the West.

Broadly speaking, the economic picture which Western Germany presents at the moment is that of a Country enjoying internally what might be regarded as a boom, in spite of its comparatively low level of economic well-being, but at the same time undergoing a crisis in its economic relations with foreign Countries arising very largely from the internal boom conditions.

The financial situation of Western Germany is not so encouraging as the economic one. The Federal Government has taken over important financial responsibilities hitherto carried out by the Laender. These include occupation costs, war pensions and grants and expenditure falling generally under the heading of defence and social service: They account for about 80 per cent. of the Federal Government's total annual expenditure, which is about 13,000 million deutschmarks. The remainder of the expenditures in Western Germany—roads, bridges, police, education and the like—are carried by the Laender.

The means of raising revenue in Western Germany are similar in many respects to our own. The chief difference is a turnover tax charged on all sales of goods every time they change hands. This tax produces about 25 per cent. of the revenue compared with our Purchase Tax here which produces less than 10 per cent. Broadly speaking, the split of taxation between the Federal Government and the Laender is that the indirect taxes, customs, excise and turnover tax go to the Federal Government while the direct taxes, income tax, property and inheritance tax, go to the Laender. There is one notable exception. The proceeds of the beer tax, which are very considerable, go to the Laender, so that Bavaria reaps the fruits of its own brewing.

The Federal Government is at the moment faced with a deficit of about 1,400 million deutschmarks, of which about 300 million can be met by contributions from the Laender, but this does not take into account the additional expenditure which cannot yet be assessed, but which is bound to arise from the increases in the occupation forces and from the expanded police forces. The Laender are slightly better off

financially than the Federal Government but, in the aggregate they will probably show a deficit too.

OCCUPATION COSTS

The present occupation costs for the whole of the Federal area amount to about 4,600 million deutschmarks. That is about 30 per cent. of the revenue and about 5 per cent. of the national income. If the standard of 10 per cent. of the national income, which is approximately the proportion which applies in Great Britain, were to be applied as the measure of defence contribution by Western Germany, the sum that Western Germany would provide would be about 8,000 million deutschmarks. This of course is no more than the application of a mathematical formula to an estimated national income.

Occupation costs have been the subject of mounting criticism and comment in the German newspapers, whose first reaction to the announcement of the expansion of the Occupation Forces was that the Occupying Powers should first cut down their occupation costs to a more reasonable level, and only then would the Germans consider new taxes. There is, nevertheless, evidence of clear recognition by responsible Germans that if Germany is to play her part and enjoy the benefits of the Atlantic defence arrangements she must also share the financial burden; and the examples set by our own Country and the United States have undoubtedly produced a sound impression. The reduction of the occupation costs does not lie solely with the Occupation Forces, although they will, on expansion, have to modify their standards and requirements. There is a body of German thought which regards the Occupation Budget as something set aside as funds belonging to the Allies. These funds are treated by some as fair game, and there is undoubtedly a good deal of padding in contracts and services which could well be cut by the Germans. It is up to them to make these economies.

That is the survey of the political, the economic and the financial situation in the three territories. There are a couple of points which are of particular concern to Western Germany on which I would like now to touch, and these are the expansion of the Occupation Forces and German re-armament.

EXPANSION OF THE OCCUPATION FORCES

The recently announced increases in the Occupation Forces have been welcomed in Germany, but they bring in their train hardships, both material and financial. There are, naturally, increased demands for accommodation, public services, equipment and materials, and also for money. The immediate problem is one of accommodation, for the majority of the barracks not required by the Occupation Forces have been handed back to the Germans to help them out in their appalling housing problems, which have been accentuated by the steady influx of refugees. It is becoming necessary to take over barracks at short notice, and the rehousing of the occupants, many of whom are old people and refugees, is a matter of concern and great difficulty for the Laender Governments. It comes, too, at a season when new building is difficult and when shortages in building materials are beginning to appear. The German attitude here is equivocal. Demands for buildings, for barracks, military installations and for land for airfields have been met with a stream of complaints, although every effort is being made to meet the German point of view. The importance of the time factor in the increase of the Occupation Forces is apt to be overlooked by the Germans in the face of what appear to them to be more immediate social and domestic demands. There is inconsistency in the repeated demands for

assurances on defence, and in the cavilling at the attempts which we have been making to carry these assurances into effect. In an attempt to solve the problems which are arising constantly from the expansion of the Occupation Forces we have in the British Zone set up Anglo-German planning bodies, and through them we hope to arrive at a solution which will meet operational requirements and cause the minimum disturbance to the German population.

The attitude of the German population to the Occupation Forces—and here, naturally, I speak with a good deal more experience of the British Zone than of the other two Zones—is one of generous respect for their behaviour and bearing and for their attitude towards their job. Social contacts between the Occupation Forces and the Germans are few, and that is one of the things that we have to develop.

GERMAN RE-ARMAMENT

In their recent communique on Germany the Foreign Ministers re-affirmed their desire to integrate the Federal Republic into the community of free nations. This means that German participation has been accepted by the North Atlantic Treaty Organization as an integral part of Western defence. On this subject of defence, the Federal Chancellor made a statement on 9th November, in a debate on foreign affairs in the Bundestag. He'said:

1

n

0

n

ul.

n-

ve

ng

is he

 \mathbf{n}

ur.

гу

ts,

rt-

-19

te

for

"If a request is made by the Western Powers, then in the Government's opinion the Federal Republic must be ready to make an appropriate contribution to the creation of this defence front with a view to ensuring the continuance of the Republic, the freedom of its inhabitants and the viability of the ideals of Western civilization. A pre-requisite of such a contribution is the complete equality of rights of Germany with the other Powers taking part and, furthermore, the strength of the defence front must be adequate to render any Russian aggression impossible."

Against this statement must be measured the general attitude of the Germans towards re-armament, and I believe that this can be resolved into five particular points. First, the Germans are weary of war and disillusioned after two disastrous defeats in twenty-five years, and they do not want to be caught up in another military catastrophe. Secondly, the Germans are military realists and generally recognize that they are incapable of waging another major war by themselves. Thirdly, they do not wish to see the re-creation of the old military hierarchy with its dominance of the political scene. Fourthly, the profession of arms has been systematically dishonoured and discredited by such measures as the Nuremburg and subsequent war trials. Fifthly, the Germans ask for equal rights with the other Powers taking part.

That, I think, summarizes the German attitude of mind, which is hesitant and somewhat apathetic. It is worth while analyzing it in detail. In Western Germany, where nearly every other family has relatives in the Soviet Zone and many have been prisoners of war in Russia, there is scarcely an individual who is under any illusion as to what life would be like if Western Germany were to be swallowed either by the Russians or by their East German protégés. Some Western Germans, it is true, want peace at any price, and some industrialists and tradesmen have been faint-hearted enough to attempt to insure themselves with the Communists by giving Communist newspapers expensive advertisements, but the Germans themselves have stopped this. If the need arose the majority would probably be ready to defend their Country, but there are other points about their attitude which, I think, require comment. German morale is extremely sensitive both to failure and to success,

particularly to the latter. It was very low in the late Summer, and rose considerably as a result of the successes in Korea. It is our job to try to improve German morale and give them evidence of our intentions to defend their Country. The Germans will probably accept sacrifices if those sacrifices result in positive and visible means of defence. The re-creation of the honour of the profession of arms is a much more difficult problem. The mystical belief in the Wehrmacht, which existed before the War, must not be revived and the problem becomes one of creating an army of the people which is part of the people and subject to the Civil Power. Nevertheless, the profession of arms is now so discredited and dishonoured that many young Germans may be discouraged from voluntarily associating themselves with such measures as may emerge for German participation in defence.

On the question of equality of rights, the German attitude was put rather pithily in the same debate, from which I have quoted an extract from the Chancellor's speech, by one man who said that those who were called upon to sacrifice freedom and rights in the common struggle must first possess them. That may seem to be a fair comment, but the other side of the coin must be made equally clear, that those who claim full membership of the Atlantic community must be prepared to accept not only the privileges of membership, but also all the obligations and responsibilities that membership carries, whatever inconvenience and sacrifice the execution of those responsibilities may incur.

SUMMARY

The picture I have tried to draw brings out certain fundamental problems which exist in Western Germany. These are first, the development of the authority and competence of the Federal Government; secondly, the guidance of German youth in the principles of democracy; thirdly, the continuing improvement of the internal and external economic position of Western Germany in the face of the extra demands which must arise from the expansion of the Occupation Forces, and from the German contribution to Western defence, whatever form that happens to take; fourthly, the provision of revenue to bear the increased defence costs; and, finally, the improvement of Western German morale and confidence in the West, and the preparations for the acceptance of Western Germany in the Atlantic partnership. Towards the solution of these problems are the recent Foreign Ministers' decisions to terminate the state of war, to establish a German Ministry of Foreign Affairs, to relax economic and other controls, and to treat an attack on Western Germany or on Berlin from any quarter as an attack on the Western Powers.

That is the picture as I have tried to present it from the German point of view. From our own point of view, I believe that I can put the scene sufficiently by quoting four separate extracts from statements made in the last two or three months by the United Kingdom High Commissioner, Sir Ivone Kirkpatrick. These statements follow in sequence although they were not made at the same time.

"We can certainly feel proud of what we have done for Western Germany since the War. No nation in history has been treated with such tolerant magnanimity after total defeat. Never in history has so much effort and so much money been spent by conquerors in raising a fallen foe from the dust. Never have nations which have been deeply wronged been so ready to forget the past...."

"In June, 1945, it seemed that it would be impossible within any measurable distance of time to restore the German economy or to give Germany any measure of independence . . . Yet so effective has our aid been that Germany

to-day, only five years after complete collapse and the virtual cessation of all economic life, has now virtually recovered her pre-war production capacity and is competing once more in the markets of the World. . . ."

"If the German Republic is to subsist we must assure the defence of the whole German territory as well as Western Europe. The necessary military measures and the reinforcement of our troops here will require severe and sustained effort on the part of the Western Nations. I personally do not believe that our peoples would for long tolerate a situation in which they were called upon to defend a Germany which claims equal rights, but remains free of all obligations. . . ."

"I should like to see the development in Western Germany of the same spirit as exists in Berlin, where the Allies and the Germans are united in a common determination to defend a common cause. To this end my Government is ready to pursue a generous and enlightened policy. History shows that generosity in politics is never a mistake, and with this sentiment I would expect most Germans to agree, but if they do they must accept the corollary, namely, that Germany should also show generosity and enlightenment, that is to say, forego opportunities of chiselling petty advantages and determine to be guided by broad understanding of the needs of the hour. If that principle is to guide our conduct, the Atlantic community will be strong enough physically and morally to confront the perils which now seem to surround us."

DISCUSSION

THE CHAIRMAN: I should just like to mention that questions will be welcomed, and in saying this I would also draw your attention to the fact that answers to questions regarding German re-armament and on the political forefront cannot be expected.

LIEUTENANT-COMMANDER C. V. S. MALLESON, R.N.: What is the future of the many thousands of Polish and other foreign refugees that we have been employing in Germany and in our mixed labour battalions?

THE LECTURER: Displaced Persons are becoming a complete German responsibility, and the German Government is accepting responsibility for assimilating them into the German population. They are doing it well and the D.P.'s are being looked after. A condition was made that if the Germans did this we should not show discrimination ourselves in favour of the D.P.'s. You referred to "mixed labour battalions"—for which I think the proper name would be "the civil mixed labour organization." The British Army of the Rhine will keep them as long as they can and as long as the units can be effectively manned. They are all subject to the International Refugee Organization's scheme of resettlement abroad if they wish to go. Otherwise I think they will remain, so long as they wish to do so, in the service of the British Army of the Rhine, and when they leave that service they will remain in Germany and be assimilated into the German population under the conditions under which the Federal Government have accepted all other D.P.'s.

AIR COMMODORE C. M. GRIERSON: I have a nasty feeling that the question which I wish to ask comes under the terms of the Chairman's ban. On the assumption that Western Germany falls in with Western European plans on re-armament, are the Western Germans prepared to take up arms against the East?

The Lecturer: That is the question we are all asking ourselves. I said in the course of my lecture that no Western German was under any illusion as to what domination either by Soviet Russia or by her Eastern German protégés was like. I should think, therefore, that it is safe to say that the Western Germans would probably resist any attempt at aggression by Eastern Germany. That is purely a personal view. It is not an inspired statement.

LIEUT.-COLONEL J. M. WHITE: You mentioned that we should try to develop cordial social relations with the Germans. Can you say what steps the High Command are taking

to encourage these social relations? It seems to me that our social relations with the Germans are one of the most important aspects of our fight, in General Robertson's vivid phrase, to win the soul of the German people. As long ago as 1946, I was already entertaining Germans and accepting hospitality from them—that was part of my job—and I found that it had very successful results.

Now a battalion of my regiment is about to go to Germany, and information from advance parties indicates that there has been very little progress in developing social relations with Germans. Very few British regiments welcome German officials or private German friends to their Messes. I cannot see how it is possible to win the confidence of the German people unless we are prepared to meet them on terms of social equality. Could you say what positive encouragement Headquarters, B.A.O.R., are giving to the development of these social relations?

The Lecturer: It really depends entirely on the unit commander. There is nothing to stop the development of social relations with the Germans and, so far as the Control Commission is concerned, it is an essential part of our job to meet Germans. I think the sort of things that units should encourage are games and sports and inviting Germans to regimental functions. I was asked in the early part of this year if it was right for Germans to be invited to the presentation of Colours to a certain battalion, and I said that the more Germans asked the better, and it was a tremendous success in German eyes. The encouragement is there—it is given by the Commander-in-Chief—but it does really depend entirely on the unit commander. It must be remembered too that a good many of the units in Germany are located in areas where there are not many Germans, such as the country round Luneburg, where opportunities do not exist. I think you have rather too dismal a view of this question and I should like to remind you of the remarkable scene when the Black Watch left Duisburg. The battalion was given a civic reception by the local authorities and was invited to march through the city before leaving for Berlin.

LIEUTENANT-COMMANDER O. St. J. Steiner, R.N.: I do not know whether this is a fair question. What faith have the Western Germans got in Western Union in the event of the Russians going to war?

THE LECTURER: To judge from their papers, the Germans have a belief in Western Union, and the quicker and the more positively we can all get cracking with the build-up and expansion of the Western Powers in Germany the greater will this faith be. We are, nevertheless, meeting this queer equivocal attitude of mind which seems to raise continual petty difficulties in the path of our build-up.

LIEUTENANT-COMMANDER C. V. S. MALLESON, R.N.: I should like to make a brief observation on the friendship between Germany and England. I found in my experience there—it was fairly recent—that the biggest drawback to inviting Germans to any officers' or ratings' functions was the attitude of wives, in particular those of the ratings and to a certain extent those of the officers. Our wardroom entertained one German and his fiancée during the two years I was there. It was not entirely officer influence; it was that the wives would not attend. In our ratings' mess Germans were only entertained on nights when the English wives were excluded from the mess.

MAJOR T. JACKSON: Have you any experience from the social point of view of entertaining by the Council of Voluntary War Workers' Clubs throughout Germany?

THE LECTURER: I have no personal experience of it although some of the Council of Voluntary War Workers' Clubs which exist come under my wing. I know that they are extremely popular, but I do not think that they entertain Germans themselves. They are a rendezvous in which British people can meet Germans.

MAJOR JACKSON: Yes, on certain nights of the week they ask the Germans to meet the British soldier. They very often have dances and other entertainments.

CAPTAIN A. R. FARQUHAR, R.N.: As most people are easily approached through their stomachs, how are the Germans eating nowadays compared with a year ago?

THE LECTURER: Those who can afford it are eating very well and there was a most astonishing change in German fare immediately after currency reform. The cost of food in Germany is about 60 per cent. higher, I should say, than it is in Great Britain, and only sugar is rationed. Many of the lower paid people such as my German driver who earns about 250 deutschmarks a month(£20), could afford to buy the complete ration. The Germans can eat if they want to and can afford it; the food is there.

GROUP CAPTAIN H. T. BENNETT: You mentioned in reference to the economics of Germany that one of the aims of the Occupying Forces was to break down the big industrial combines. Can you say how far this has gone in the case of firms like Krupps?

THE LECTURER: The de-cartelization organization has now broken down all the big combines. The coal and steel combines have gone and Krupps has gone. The last to go was I. G. Farben, which went about two months ago. As far as our own Government's policy is concerned, de-cartelization is virtually complete, but I cannot speak for the American or French view on that.

MAJOR-GENERAL G. M. LINDSAY: May I ask whether there would be a dislike on the part of the Western Germans to fight against their Eastern German kinsmen if the Eastern Germans attacked them now? Could you also tell me if there is likely to be an aversion on the part of the Eastern Germans, to attack Western Germany at the order of the Russians? Might there not be a good deal of desertion from that Eastern German army to the West?

THE LECTURER: It is difficult to reply but I think it cuts both ways. The answer which I gave to an earlier question should apply to this one. There are, of course, defections of Eastern Germans to the West which indicate dissatisfaction with the training and indoctrination of the Eastern German Police. I am afraid this is a very hard question to answer.

MR. WALTER TREVLEBEN: As I am a German myself, may I ask a few questions on German re-armament? Does German re-armament mean the repairing of the German war industry or does it mean the delivery of arms to German soldiers? Are you going to rebuild the German war industry if you create a new army, or just have American and British equipment?

The Lecturer: I think that question can only be answered when a decision as to what form of German participation will take has been made. The matter is still under discussion in political circles. Having decided on that, the next problem is how they are to be armed. It is too early yet for a decision. We must all form our own opinions on that, but there is no doubt that if Western Germany comes within the orbit of Western European defence, some form of material contribution to the resources of the West will be necessary. Whether it will be arms, raw materials or finished products is a matter which the authorities must decide when the whole pattern of re-armament has been fixed. It is fair to say that "equality of treatment" with other powers on Western German Defence would commit Western Germany to a production programme on a considerable scale.

COLONEL F. H. SMITH: Regarding the question of steel, I understand that we are shutting down steel plant in Germany and are supplying large quantities of steel for construction work from this Country and America, and that is extremely difficult at present. Also you mentioned that there were 1,800,000 people unemployed. In the Russian Zone there is no unemployment. The Germans, on the other hand, want us to reduce the cost of our Occupation Forces. The Russians are solving that difficulty very simply by either turning them into slave labour or putting them on to the land. So does it not appear to the Germans that our policy is rather weak?

THE LECTURER: I think you are referring to the question of dismantling the steel furnaces. This was stopped in September and the only dismantling going on now is in the case of certain specified plants in certain steel works which have little economic value, although they possibly have a strategic value or war potential. The question of an increase

in the production of steel has been under discussion, and the Germans were very well satisfied with the gesture which was made in putting an end to dismantling. I do not think that the Germans now really worry about our actions in that respect, except in the isolated instances which I have mentioned.

The Chairman: It is my duty to sum up, but there is no need to do so this afternoon, for you have heard such a very clear statement about the situation in Germany since 1945. Although I have had to visit Germany in the last couple of years, this lecture has taught me a great deal and clarified many of the problems that I came up against in those visits. There are certain other things which the lecturer has cleared up. I was comparing what we have heard to-day with what happened from 1918 onwards. The money problem then was most interesting. The troops in occupation, the R.F.C., the R.A.F. and the Army, came up against various money problems at a fairly early stage. For instance, when we wanted to pay the airmen and troops the money was collected from the bank, and finally we had to stop this because, for a comparatively reasonable cheque for the usual weekly amount, we had to send at least two men with very large sacks to bring back the mass of paper money. We never really had an opportunity of checking it all. Fortunately we never reached as bad a position after this last war. I will not go into any other details of that kind.

It is for me to thank General Wansbrough-Jones most heartily on your behalf for his talk, and to ask you to show your appreciation in the usual manner. (Applause).

COLD WAR PROBLEMS

BY WING COMMANDER EDWARD HOWELL, O.B.E., D.F.C.

HE art of war is constantly evolving like its weapons. The student of the art is always in danger of trying to improve on the last war instead of learning how to win the next one. To be successful he must interpret correctly the new trends and possibilities. He must not only learn existing techniques but also invent the new ones required. It has never been more important than now to realize this fact. The evolution of the art of war has never been more rapid than at this critical time in history. The weapons of war have suddenly become vastly more destructive and their range and flexibility enormously increased. Even more important, however, the technique of aggression and conquest has been developed in wholly new directions.

Although the atom bomb and the jet aircraft may have transformed our conceptions of war in one sense, yet we have only to consider the history of the past few years to realize that at least six Countries have been conquered without using them. This does not mean that these new weapons are outmoded. Obviously in any future World War they would play an extremely important part. It does mean however that we have been and are being faced with new and extremely effective techniques of conquest. No one can afford either to ignore this fact or its immediate implications. We must in fact learn a new technique. How to wage and win the Cold War in all its aspects—military, political, economic and ideological.

DEFENCE IN THE COLD WAR

The recent publication by a Chatham House Study Group, under the chairmanship of Major-General Sir Ian Jacob, of a report entitled *Defence in the Cold War*¹ is therefore of more than usual significance at this time. As far as I know it is the first serious attempt to approach these new problems in their widest sense taking into account the military, political, economic and ideological factors and relating them to each other in the complete defence picture.

The report analyzes the defence problems of the Democracies and defines the Cold War as the policy of making mischief by all methods short of World War. It points out that, by cold war, the user can and has imposed his will upon whole Countries, achieving the object of war without employing some at least of its traditional methods.

POLICIES OF DEFENCE

The Study Group outlines the aims and methods of World Communism which has developed these new techniques, and continues to employ them against a free World which has hardly begun to study them. It goes on to examine the various policies of defence that the free World has so far devised, best summarized perhaps in the American attempts at "containment" and the building up of "situations of strength." It draws attention to the present threat that the main Communist effort will continue to be made in the area where military and political co-operation in containment, on the scale it has been developed in Western Europe, exists hardly at all—in Asia.

While the atom bomb is not ignored by the Study Group, it maintains that its use in a "hot" war is limited, and it is of no use in the Cold War. It does not agree with Mr. Churchill that fear of the bomb has been a potent factor in preventing war

¹ Defence in the Cold War published by the Royal Institute of International Affairs, Chatham House, London. (5s.)

in Europe up to date. Whatever one may think of this assessment, everyone will agree with its conclusion that we should not rely unduly on the atom bomb for defence.

WESTERN EUROPE AND THE ATLANTIC POWERS

The report says "Western Europe is the political citadel and the military base of the free world—it is also its heart and brain, the place where its spirit and values are kept alive by men and women in their public and private lives." This is why the defence of the West is the defence of the free World. The Group feels that the British attitude of limited liability in Western Europe needs "drastic if gradual revision." While this is no doubt true in the sense that the Group infers, it is also worth reflecting, at a time when Asia is much more vulnerable to cold war offensives than Europe, that defence cannot be planned on a purely regional basis. Defence, like peace, is indivisible in an age where war is total. It was Lenin himself who said "the road to Paris lies through Peking and Calcutta." So while the defence of the West must obviously take first account of the threat from the other side of the Elbe, it must not forget to look to the East as well. It is indeed unlikely to do so at a time when so much of the available forces of the free World are committed to action in the Far East.

It is however in this regional planning that the Atlantic Powers' organization seems to have foundered in a sea of committees. The report draws attention to the almost ludicrous complexity of the arrangements. Regional planning involves some fifty committees each with many members. Some are in London, some in Washington and some in Paris. To expect a high degree of co-ordination or the capacity to make quick decisions from such an organization is clearly impossible. It is obvious that, as the report says, it "could stand neither the strain of real emergency nor the test of war." Recent talks between the Atlantic Powers indicate that action may be expected in the near future to simplify the whole affair. It should bring about the long-overdue merger of Western Union and Atlantic organizations into the semblance of a Supreme Headquarters with appropriate powers.²

THE FORCES REQUIRED

In estimating the Forces required for the reasonable defence of the West, no doubt the Group was influenced by the thought that, with such limited resources available at present or even in the foreseeable future to the free countries, it was important not to seem to be recommending the impossible. It has therefore assumed what seems to be a low figure for Soviet strength of a hundred divisions and 10,000 aircraft immediately available. Likewise it has assumed what seems to be a high figure for the Atlantic Powers of twelve divisions and 1,000 aircraft now ready for action in the West. Be that as it may, an inferiority in land and air forces of the order of one to eight or ten clearly calls for immediate drastic action.

The Group recommends building up the forces of the free nations in Western Europe to a minimum of fifty to fifty-five divisions, of which one-third should be armoured and one-third stationed in Germany. The air forces, it recommends, should be increased to a minimum of 5,000 jet fighters and 1,000 tactical bombers. Until such long-term increases are possible, it urges that piston-engined fighters should be brought immediately back into service.

² This article was written before the appointment of General Eisenhower as Supreme Commander of the merged Western Union and North Atlantic Forces in Europe.

Before accepting these recommendations at their face value there are many points one would like to see discussed more thoroughly than has been possible in the report. There is for example the question of whether by increasing mobility and fire power you can in fact afford to operate with such a marked inferiority in numbers as one to two or three in land forces. There is also the complex question of how to gain and maintain air superiority which is so closely tied up with the performance of the aircraft. And the suggestion to employ piston-engined fighters—however useful in the close support role—needs much closer and more detailed examination.

Indeed this section of the report offers opportunities for many profitable discussions. Thus, when the Group regards strategic bombers as auxiliaries to rather than partners in the defence of Europe, many would take another view. Likewise when it says that the threat at sea is not serious and that we should therefore cut British and American naval strength as one immediate possible economy, there are many who would doubtless feel that the problem of safeguarding a World network of sea communications had been too lightly dismissed.

Of course to discuss such complex problems adequately would have taken far more space than one chapter in a report of this kind. Perhaps the Study Group would have been wiser to have been even less specific than it was in the examples it chose. But nobody will deny the overall conclusion of this section, that much more radical increases in the forces available to the free countries are urgently required than are either projected or planned up to date.

CAN RE-ARMAMENT BE AFFORDED?

The Atlantic Powers spent on an average 4 per cent. of their national incomes on defence in 1949. It is to Britain's credit that she spent 7.4 per cent. against 5.9 per cent. by the United States and only 2 per cent. by Norway and Denmark. For 1950 it seems that some agreement has been reached so that each Country spends about 10 per cent. Against that it has to be remembered that the Soviet Union spent 13 per cent. in 1949. To expect parity in force without at least approximate parity in expense would seem over-optimistic.

To the question "Can Re-Armament be Afforded" the Group replies that "re-armament which prevents war is cheap at almost any price that is likely to be paid." It goes on to point out that the free countries are faced with a problem of choice. It is a choice between devoting the years ahead to preventing war and then getting higher standards of living, or of enjoying higher standards of living before war comes and then losing them all, and this time without hope of recovery. In fact it is not a question of guns before butter but rather of peace before plums.

The Group feels that the policy of the free World should in fact be "to keep itself in reasonable economic health while it becomes capable of defence. It is patently absurd to argue that the combined wealth and skill of what Mr. Acheson calls the Atlantic Community are economically incapable of matching the peace-time strength of the Soviet Union. It clearly can be done, without serious harm to their present standards and hopes, if the policies and resources are combined according to the principles they have accepted."

THE ROLE OF THE GERMANS

The role of the 48 million Western Germans in the defence of Europe has occupied much attention in recent months. The report devotes a chapter to it. It presents the pros and cons for re-arming Western Germany to provide either an independent

national army or an integrated portion of a West European Army. One thing it makes clear is that although occupation in its present form cannot go on for ever there can be no withdrawal of troops from Germany either now or in the immediate future. The danger that the Elbe may become another 38th Parallel remains, and a major aim of Western policy must be to provide security for West Germany.

As to the Western German contribution to this security, the Group feels that it should take the form of integrated forces within a European or Atlantic framework, as in fact was later proposed by the Atlantic Powers and in the French Pleven Plan. The report points out however that German opinion is by no means clear on this. The German attitude tends to be one of apathy and confusion. Moreover it emphasizes that it is important not to underrate the defeatism and genuine pacifism to be found in Western Germany. It is clear therefore that the problem is not only one of strengthening the defences of Germany by one means or another, but even more of winning the loyalty and enthusiasm of the Western Germans, an intangible but none-the-less vital factor.

Up to the date of the report the 48 million Western Germans were allowed 95,000 police armed with rifles and tommy guns. Yet the 17 million Eastern Germans have been given 200,000 police of which 50,000 have tanks and artillery. This dangerous disparity of forces has not been altered by the Atlantic Powers' recent decision to increase the Western German police by 30,000 men.

A factor which is perhaps insufficiently stressed in the report but has obvious relevance to the problem is the attitude of the former German officers to all this. Whatever one may think about their past record, it is inconceivable that the creation of an efficient Western German force can be undertaken immediately without the enthusiastic co-operation of at least some of them. How to win this is a problem in itself.

The fact is that many capable officers, bitter and disillusioned with the West although far from being Communists, have already been lured into the Peoples' Police in the East. One reason is that it offers them back their chosen professional careers. In the West, those who were not in prison had to undertake manual labour jobs. Another attraction is the Communist programme for a united Germany. Every German naturally wants to see Germany reunited. Many officers accept service in a Communist force with the idea that once unity has been re-established they can throw off the Communists. People had the same idea about Hitler, but Hitler remained.

d

id

u

ar

fo

There is therefore a real danger that if the Western Powers do not soon adopt a consistent and firm policy for German defence, and make a serious attempt to win the loyalty and enthusiasm of the Western Germans, they may find themselves undertaking the defence of Europe on the Elbe without the support of the German people, without the help of professional soldiers and with a strong fifth column behind their backs.

THE WAR OF IDEAS

This problem of winning allegiance is really the basic problem of the Cold War. For over a century now the Marxist, Leninist, Stalinist machine has carefully studied and supplied a new technique. It is the technique or the art of winning the allegiance of the masses to a great idea. The use of force and terror, but also the gentler arts of persuasion, have been brought to bear upon the human heart and mind to capture and hold their allegiance. This new technique has hardly received attention in the Western World except in the relatively narrow spheres of traditional religion, politics or

advertising. Communism on the other hand has its missionaries in every corner of the globe, a close network of convinced, dedicated and devoted men and women who study and apply a highly developed technique of winning the hearts and minds of human beings, preferably in positions of responsibility. Their success is one of the underlying causes of the present World crisis. We can and must meet the challenge in various material ways as suggested in the report, but there remains this problem of winning allegiance.

Has Democracy better ideas than Communism? Most of us in this Country beleive that it has. But even here we have a powerful fifth column at work as shown by strikes and slow-downs, by sabotage and espionage. Our plans for defence depend to a large extent on the vigorous participation of our Allies. Yet 28 per cent. of the French and 30 per cent. of the Italian electorate voted Communist at the last elections. How strong can we expect these countries to be in the event of a war with Russia unless this problem of allegiance is solved effectively on the widest scale?

In answering this problem of what it calls "The Struggle of Ideas" the Study Group is perhaps at its weakest. Nevertheless many valuable points are discussed. The report draws attention for example to the disturbing speed with which the youth of Eastern Germany has been captured by Communism since the War. It exposes the common fallacy that economic improvements by themselves remove Communism. It examines some of the measures necessary to minimize the Communist appeal to under-developed countries, and suggests that a Government study is needed for areas like the Middle East and Asia. But to the question whether the free World can—it obviously should—produce any 'dynamic' comparable to that of Communism, the Group found it impossible to give any answer.

This rather defeatist attitude to what is, after all, the crux of the Cold War, will not be generally shared. The Group's arguments against official government action in this sphere of ideas are likewise weak. They fear the use of totalitarian methods and claim that the ideological battle must be waged by devoted and intelligent individual effort without indicating how such efforts can be developed. While admitting with the Group that dedicated and convinced Communists can only be dealt with at their level by other dedicated individuals, is there no way to recruit and train such individuals and employ them intelligently in the ideological war?

If the free countries are to win the ideological struggle which underlies and directs the Cold War, they must surely confront the ideas of Communism with better ideas, the technique of Communism with a sounder technique, the apostles of Communism with a corresponding corps of trained and devoted men. In the war of ideas, until we can win on a World front more people to our ideas than are won from them, we must go on losing, whatever delaying tactics we employ or defensive preparations we make.

The title of the Study Group's report is perhaps its most significant feature. Defence in the Cold War advocates defensive measures. Certainly these are necessary and long over-due. In pointing them out and in making specific recommendations for both immediate and long-term action, the Group has rendered a most important service at a very timely moment. But unless we apply ourselves to the further task of moving out into the offensive in the war of ideas now raging, our best defensive preparations are like the Maginot Line—doomed to be outflanked and over-run.

of d

PROGRESS AND SPECIAL PROBLEMS OF INDIA AND PAKISTAN

By Lieut.-General Sir Richard Gale, K.B.E., C.B., D.S.O., M.C.

On Wednesday, 1st November, 1950, at 3.0 p.m.

GENERAL THE LORD ISMAY, G.C.B., C.H., D.S.O., M.C., in the Chair

THE CHAIRMAN: Since the last lecture in this hall the Royal United Service Institution has suffered a very grievous loss by the death of the Secretary and Editor.

This is not the occasion on which to attempt to do justice to the incomparable service rendered by Captain Altham to this Institution for nearly a quarter of a century, nor for us who were his friends to say how greatly we shall miss him. I am sure it would be your wish that at this first lecture since his passing we should stand in silence for a moment in his memory.

Members then stood in silence as a mark of respect to the memory of Captain Edward Altham, R.N.

Our Lecturer to-day is a man of many parts. I first met him when he was a Master of Foxhounds, and in his spare time he was having something to do with military training! My next meeting with him was at the beginning of the last war when he used to come to the Chiefs of Staff and tell them with great lucidity and considerable force what was possible administratively and what was not. We were not very well equipped in those days!

My next meeting with him was just before he led the Sixth Airborne Division to Normandy in the invasion. Many of his subsequent exploits have passed into history, and I am sure that with such a versatile background, we shall have a very interesting lecture.

LECTURE

N order to get the whole picture in perspective it would, I think, be wise for us to travel back a few years. We are dealing with two National Armies, both intensely proud of their Countries, both fired by a firm belief in their own respective religions, and both having an honourable, a great and a very ancient historical background. With such elements so strongly marked, small wonder that tradition plays its part: for in these Countries tradition is no mantle worn as a pose or forced upon the shoulders of an unwilling and perhaps even bewildered wearer: it is one of the instinctive forces which animates the majority of people irrespective of wealth, social stature, or caste where this exists. This is my first excuse, nay good reason, for a few remarks in retrospect.

There is another perhaps less obvious, but nevertheless real, reason. It is that we are witnessing the passing of a generation of British men and women who knew, understood and loved the Indian sub-continent. Their interest in what I have to say will be an interest of sympathy and sentiment, deep, keen and heartfelt. The oncoming generation, however, by the very nature of things cannot have that same knowledge of the past. They naturally look at things through the spectacles of to-day and, unless they have some personal connection with old India, are probably unaware of much of the intimate detail of the past, small perhaps to the casual observer, yet great in its less obvious but deeper impact on matters of to-day. The great majority of them will never perhaps have been to India. The relationship between officer and man in many cases bred by two or more generations of service in the Indian Army or the Indian Civil Service will be unknown to them. In more recent times, between the two Wars there was the close relationship that grew

between the King's Commissioned officers and their British brother officers, with whom life both on and off parade, in sport and in the mess, was shared.

EARLY HISTORY

The story of Hindu India's development back in the dawn of history is told in the Epics—the Brahmanas and the Mahabharata. These epics reveal a constant war of good against evil, and the warrior throughout them all plays his part. He occupies for page after page the centre of the stage. In a Country where there were many castes and communities whose occupations were hereditary, the standing army came to consist largely of members of the hereditary fighting castes, thus maintaining a group solely devoted to the waging of war. This caste was known as the Kshatriya or Warrior caste and it still exists in Hindu India. Great stories of chivalry are there for the reading in Todd's "Annals and Antiquities of Rajistan." The days of chivalry may have passed in our own lands, and we may tend to neglect the message those days may have for us to-day; but in Hindu India the chivalry and glory of Prithvi Raj are still alive.

From 1000 A.D. onwards India was a constant battleground: Mahomed of Ghuzi, Mohamed Ghori and Timar in turn invaded and devastated the Country. In the early XVIth Century Barber founded the Great Moghul Empire which Akbar consolidated.

THE EAST INDIA COMPANY

It was at this time that Queen Elizabeth granted a charter to certain associations of commercial gentlemen which styled themselves "the Company of Merchants of London trading with the East Indies." This company, operating as it was in faroff lands and in isolated posts, was always a prey to marauders and quite naturally organized guards for the protection of its stores and warehouses. It is from these small beginnings that the great Indian Army originally sprang. The development of this Army was logical; each reform and consequent change was for the better. Each ultimately and quite logically, though not always apparently and at certain phases not by any means intentionally, led to an Indian Army controlled and commanded by its own government and by its own officers. The original guards consisted of small bodies of often ill-disciplined Europeans and badly-armed native peons, who in many cases we should now probably regard more as a corps of Chowkidars, or watchmen, than an army of soldiers.

By the beginning of the next century, that is after about one hundred years, the merchant adventurers had firmly established their trade in India under the protection of three main fortresses: the Island of Bombay, Fort St. George in Madras and Fort William at Calcutta. From these beginnings, and after many vicissitudes, the three great Presidencies of Bombay, Madras and Calcutta were established. They were independent of each other and answerable only to a Court of Directors in London. From a handful of miscellaneous, ill-disciplined Europeans and natives their forces had developed into small but well-organized military armies. In 1785, the susceptibilities of the three Presidencies received a shock: for in that year the Court in London sent out a Major with instructions to assume responsibility for all the Company's forces in India. His appointment was that of Commander-in-Chief. His name was Stringer Lawrence, a great name in the annals of history, known affectionately to successive generations as "the father of the Indian Army."

Stage by stage this great army developed. It was forged on the anvil of experience in two World Wars, on generations of honourable fighting on its own frontiers and

beyond, on years of experience in organization, training and man-management. It has been strong enough to break in twain: a shattering blow to an instrument less finely tempered and less loyal to its best traditions and its finest instincts would have spelt disaster.

THE PRESIDENCY ARMIES

By 1805, after two hundred years of development, the strength of the three Presidency Armies had grown to 154,500, of which 24,500 were British units and 130,000 were Indian. There were, however, deep-rooted disadvantages and failings in the whole system. Territorial expansion, the Punjab wars and later the necessity for garrisoning the Country, lack of accommodation for families in these new areas, the curtailment of active service allowances and concessions to which the soldier had become accustomed all led to dissatisfaction. Mutinies were not uncommon. The Presidency Armies were, in fact, familiar with this method of ventilating grievances, a familiarity which culminated with such baleful effect in 1857. It would, of course, be quite unreasonable to impute all the disastrous events of the Great Mutiny to the Presidency system. There were many other contributory causes, of which the unrestrained activities of revolutionaries and sedition mongers were not the least important. Nevertheless, as a result of the parochial sentiment and exclusive loyalty which it fostered, and the mistaken views of vested rights and interests which it encouraged, the Presidency system must bear its share of blame.

The outcome was to have far-reaching effects. On 1st November, 1858, by Royal Proclamation Queen Victoria assumed the direct government of India.

At once two problems presented themselves for solution. They were the status and organization respectively of the European and Indian forces of the late Company. Two courses were open. Either the British forces serving in India were to become a part of the Imperial British Army—units of which were to take their turn in garrisoning India—or they must become localized forces maintained solely for service in India. The decision necessitated the transfer of the late Company's European troops to service with the Crown. The Company's European troops became British Regiments of the Line, and the Bengal, Madras and Bombay European Artillery were amalgamated with the Royal Artillery.

By 1861, the reorganization of the Indian troops had been taken in hand. Some cavalry and infantry units were disbanded and others amalgamated. Most of the Indian Artillery was abolished. Cavalry were organized on the Silladar system, and the establishment of British officers of regular cavalry and infantry units was reduced to six.

INAUGURATION OF THE INDIAN ARMY

Between 1879 and 1894 there were further reorganizations. The conduct of the second Afghan War of 1878-80 had shown many defects. The most important was the abolishment of the old separate Presidency Armies. By a General Order of the Government of India in the Army Department, No. 981, of 26th October, 1894, the Presidency Armies were abolished and an "Army of India" inaugurated. This Army was divided into four Commands:—

Punjab (including the North-West Frontier and the Punjab Frontier Force).

Bengal.

Madras (which included Burma).

Bombay (which included Sind, Quetta and Aden).

Each Command was divided into Districts.

Lord Kitchener took up his appointment as Commander-in-Chief on 28th November, 1902. By January, 1903, he abolished the India Staff Corps, and officers belonging to that corps were designated "officers of the Indian Army." From this moment British officers as well as the rank and file of all Indian units belonged to one Corps—"The Indian Army." At the same date Burma became an Independent Command. In Indian Army Order No. 181 of 2nd October, 1903, new designations and numbers of all units of the Indian Army were published. All units were numbered in sequence according to arms and all reference to the old Presidency Armies was omitted.

Kitchener's further changes in organization resulted in the formation of Commands or Armies and Divisions. The Divisions with which so many of us are familiar were:—

Ist (Peshawar) Division5th (Mhow) Division2nd (Rawalpindi) Division6th (Poona) Division3rd (Lahore) Division7th (Meerut) Division4th (Quetta) Division8th (Lucknow) Division

The redistribution scheme as envisaged by Lord Kitchener had not been completely carried out when the First World War broke out; but it is to the observance of the principles which he laid down, and by which the union of the Army of India was finally completed, that we must largely attribute the fact that the Army in India took up its responsibilities in the great struggle as promptly as it did. In the War the Indian Army expanded from a strength of 155,423 to 573,484 all ranks.

THE ESHER COMMITTEE

In 1919, an Army in India Committee was appointed, having Lord Esher as president, with the following terms of reference:—

- I. To enquire into and report, with special reference to post-bellum conditions, upon the administration and, where necessary, the organization of the Army in India, including its relations with the War Office and the India Office, and the relations of the two Offices to one another.
- To consider the position of the Commander-in-Chief in his dual capacity as head of the Army and Member of the Executive Council, and to make recommendations.
- To consider and to report upon any other matters which they may decide are relevant to the inquiry.

The Committee presented their report towards the close of 1920. About the same time, General Lord Rawlinson became Commander-in-Chief in India. It had also become possible to assemble at Army Headquarters a staff composed largely of officers who had gained distinction and invaluable experience during the First World War; and, under these auspices, the process of reorganization began to take a practical shape. The general scheme which was evolved had a wider scope than the recommendations of the Esher Committee, since the terms of reference to that Committee had been limited and, apart from this, there were many questions both of principle and detail which it was impracticable for the committee in the time at its disposal to take fully into consideration. But it is important to remember that the Esher Committee was largely reponsible for improving the terms of service of the Indian ranks of the Army in India, and for placing the improvement on a firm basis. The Indian soldier and the Indian officer with the Viceroy's commission were

now fed, clothed, housed and, in the mounted branches, horsed by the State, on an adequate standard: and their pay and pensions now assessed on a scale which subsequent experience has shown to be sufficient to obtain recruits in the numbers required and to secure contentment and efficiency among those recruited. It would be hard to exaggerate the importance of this step.

The process of Indianization was started, and the first officers to pass through Sandhurst in those post-war years are now the Commanders-in-Chief and senior Generals of the Indian and Pakistan Armies.

THE PRESENT DAY

And now to turn to the present. My only excuse for giving this lecture to you to-day lies in the fact that I was privileged to visit both Pakistan and India in November of last year: almost exactly twelve months ago. As a background perhaps it is appropriate for me to say here that I served in India continuously from 1919 until 1936, and again in 1945. During seventeen or eighteen years in the Country I naturally saw life over most of the sub-continent. I went to the Quetta Staff College. It was, therefore, not merely with an official but also a deeply personal interest that I looked at things as I found them in 1949.

On my visit last year, I think the attitude wherever I went can best be epitomized in the letter recently published in *The Times* which General Cariappa, the Commander-in-Chief of the Indian Army, wrote to Lord Birdwood.¹

Everywhere I found units and individuals animated by great pride of race, great patriotism, and a keen and deep sense of religious brotherhood. In the forms in which I saw these instincts developed I felt that they were all natural, virile and healthy. An overdose of any could well lead to a lack of balance, a small-minded, an isolationist and self-sufficient attitude of mind with all its cramping consequences. I saw nothing to make one think there was any real danger of such development. Rather did I observe a broad-minded, realistic approach which, while conceding nothing on these strong and healthy national counts, saw the World as it really is with natural alliances of ideology, traditions, economic factors and Commonwealth inter-relationships. The influence of the past was strong, but not morbid: sensible and not unbalanced: genuine and not posed. This much for the spirit. I labour this point perhaps, but I do so because one of the essential points to gauge accurately when observing any army is the spirit which animates that army.

The next point one looks to is the general training structure on which the army is built. If this structure is sound, practical and realistic then the units and formations can be expected to function efficiently and harmoniously. For the rest one depends on a suitable range of equipments and a sound table of organization and system of command.

The broad-based training structure must include a sound and progressive system for training officers in their pre-military academy or cadet sphere, at the military academy and thereafter through a series of courses, arms schools, a staff college and higher joint services training, and finally a defence college, such as the Imperial Defence College, where the study of higher strategy in all its aspects can be undertaken. For the man in the ranks there must be a good basic or recruit training system, a sound system of schools for specialists and a sound promotion structure based on tests both educational and military for the higher ranks.

¹ The Times, 24th August, 1950.

THE PAKISTAN ARMY

After a short stay in the capital of Pakistan, I was flown in a Pakistan Air Force aircraft to Quetta. There I saw a school for the pre-military academy training of cadets. The course lasts some six months, and the instruction is done in English. Cadets whose educational backgrounds vary naturally are very uneven, and here they are levelled off. The syllabus includes physical training, games, indoor study, English, mathematics, history, geography and general knowledge. The staff are both professional and military. The whole scheme is excellent and will I am sure pay an immense dividend.

The Staff College, housed in the old Staff College buildings, is run on almost the exact lines of the Camberley Staff Course. The Commandant at present is a British officer and the Directing Staff is both British and Pakistan at present, predominantly British. Two British officers are included in each course and receive at the end of their year a p.s.c. ranking exactly the same as ours at Camberley. The library is excellent and now occupies what in my day was the old ante-room and mess. The mess is excellent and was constructed before the War. At the Staff College Special Senior Officers' Tactical Courses of about eight weeks are run for Lieut.-Colonels and above. These I think correspond very largely to our Senior Officers' School Courses.

At Quetta also is located the School of Infantry; here they run weapons courses and junior leaders' courses, each of six weeks duration. All young officers passing out from the Pakistan Military Academy go straight to the School of Infantry.

At Kakul which, as many of you will recall, was the hill station where the old School of Artillery was situated, I visited the Pakistan Military Academy. Much of this Academy is housed in huts. The syllabus is sound and based on a good allround education. The cadet does two years here. Selection for technical arms is done in the last two terms. The Commandant, at the time I was there, was a British officer. The standards were high and the product should be excellent. If I had one criticism it would be that, rather like Sandhurst, through excessive keenness the pace may be a bit too hot. We must not burn our youngsters out. I believe that this is being rectified.

Before the young man reaches the Pre-Cadet Training School he will probably have passed through the King George's Royal Pakistan Military School, which has an intake of some four hundred at the age of nine years. The object is to raise the educational standard of the boys and make them fit ultimately for the Military Academy. Those who do not go to the Academy make good Non-Commissioned and Junior Commissioned Officers.

From this I think you will see that the officer's career is carefully planned and soundly developed. Many officers both from India and Pakistan come home to the United Kingdom to pass through our Senior Officers' School, Joint Services' Staff College and the Imperial Defence College. It is, I might remark in passing, most gratifying to see how well both the Pakistan and Indian officers attending the Joint Services' Staff College and the Senior Officers' School have done.

In so far as other ranks are concerned, the recruit does a normal nine months basic training in a training battalion. I saw that of the Frontier Force at Abbotabad which was first class. I can with confidence say I have never seen a better. Boys are enlisted into boys' companies to turn out specialists and ultimate junior leaders.

There is also a G.H.Q. Training Team whose function it is to assist in the training of Brigade and Divisional Commanders and to arrange demonstrations and exercises throughout the Army.

At the moment the Commander-in-Chief of the Pakistan Army is General Sir Douglas Gracey. He has under him a number of British General officers, and others serve in command and some on the Staff. From the 1st January next, command will quite rightly pass to a Pakistan officer. We are fortunate to have with us here to-day Lieut.-General Ayub Khan, the Commander-in-Chief Designate of the Pakistan Army, and I am certain you will all wish to join me in according to him our warmest goodwill.

THE INDIAN ARMY

The general training structure in the Indian Army is similar to that in Pakistan, so in dealing with India I will speak in a more general way.

The organization of the old Indian Army is retained, and it behaves and functions in exactly the same way as it did before the Independence of India. The only changes of importance since introduced are that the recruitment of the Army is now open to all Indians irrespective of class and creed, and they can join a unit according to the zone they live in. Before this, class composition from amongst the listed "martial" classes based on communities was laid down for each unit, and a man could only enlist in a unit authorized to enrol his particular class. Each of the big States in India had its own Army, collectively known as "State Forces." In the past these had a varying standard of efficiency and equipment, but they have now been taken over by the Indian Army, and are being brought up to the same standard of efficiency. The V.C.O.—Viceroy's Commissioned Officer, a rank peculiar to the Indian Army, is now called a Junior Commissioned Officer, but there is no change in his status. Lastly, there has been a change in the badges of rank worn by officers. The Crown has been replaced by "Ashoka Lions" and the four-pointed star by the five-pointed star. The nomenclature of ranks, and the symbols to be worn, remain the same.

Army Headquarters in New Delhi is the equivalent of our War Office: it is the highest formation headquarters that controls the Army; at its head is a General called the Chief of the Army Staff and Commander-in-Chief. The Country is divided into three Commands, each being commanded by a Lieut.-General who is a G.O.C.-in-C. For administrative purposes these are sub-divided into Districts—each being a Major-General's Command—and Sub Areas. In some of them are located lodger formations, e.g. Divisions and Brigades.

DEFENCE COMMITTEES

The determination of the defence policy is the responsibility of the Cabinet. It is assisted by the Defence Committee of the Cabinet, which deals with all important questions relating to defence on its behalf.

The composition of the Cabinet Defence Committee is as follows:-

Prime Minister	Tarry my				Jun der un Studyn
Deputy Prime Minister	***	***	***		THE THE ADILY
Minister for Finance		***			Members.
Minister for Defence	Contract W	12	100	S THE	by a list Harmont, 20
Minister for Transport		Phyllip	10		authority for the second
Commanders-in-Chief of t	he thre	e Servi	ices	i on	A mere la also a C
Secretary, Ministry of De				O Line	In attendance.
Financial Adviser, Defend					http://will.loorlgim

Prior to 15th August, 1947, there was only one Commander-in-Chief who was also the Member for Defence on the Viceroy's Executive Council, and was thus able to co-ordinate proposals from an inter-Services aspect. Since 15th August, 1947, each Service has a separate Commander-in-Chief, under the Minister for Defence, who is a member of the Cabinet.

The Defence Minister has a Committee of his own, called "The Defence Minister's Committee," and this is composed of the Minister of Defence as Chairman; the Secretary, Ministry of Defence; the Financial Adviser, Defence; and the three Service Chiefs as Members. The function of this Committee is to submit to the Cabinet Defence Committee plans and papers on Defence subjects which require the approval of the Cabinet. The Committee is empowered to give decisions on all other matters affecting one or other of the three Services.

In addition to the above, there are three separate Committees, one for each Service, known respectively as the Defence Minister's Navy, Army and Air Committees with the Defence Minister as Chairman; the Secretary, Ministry of Defence; the Financial Adviser, Defence; and the respective Service Chiefs as Members. These Committees consider Administrative and Policy questions relating to the particular Service concerned.

Under the Defence Minister's Committee there are also the undermentioned Committees, each competent to take final decisions on certain matters, but which must submit policy questions to the Defence Minister's Committee.

(a) The Chiefs of Staff Committee.

(b) The Inter-Service Works Priority Committee.

(c) The Defence Science Policy Board.

(d) The Defence Science Advisory Committee.

- (e) The New Weapons and New Equipment Production and Supply Committee.
 - (f) The Medical Services Committee.

These various Committees consider all major questions which effect all three Services in their respective fields (as indicated by their title) from a Service point of view and submit their recommendations to the Defence Minister's Committee. They are in turn served by a network of sub-committees at lower levels.

ORGANIZATION

The various Corps in the Indian Army are more or less organized on similar lines as in the British Army, and have their officers' schools, training centres, and the like on similar lines to our own, in many cases still commanded by British officers.

The various units are grouped together into regiments, with each 10th Battalion acting as a permanent Depot Battalion reponsible for receiving, training and posting of trained recruits to the various units belonging to it. For example, take the case of the 2nd Punjab Regiment. The 10th Battalion 2nd Punjab Regiment is the Depot Battalion for the whole Regiment, and is always located in one station. The 2nd Punjab Regiment has a certain number of units, e.g., 1st Battalion 2nd Punjab Regiment, etc., and is capable of expanding as new units are raised. These Battalions have a company in the Depot, i.e., the 10th Battalion, representing their parent Battalion which receives, holds and trains the recruits for that particular Battalion. By this method the units, irrespective of the place they are serving, can be maintained up to strength, and in time of war Regular officers can be evened out without loss of regimental spirit.

Recruitment to the Indian Army is for a period of nine years with the colours and seven years with the reserve. It is possible to continue and complete the whole period in colour service. Recruitment, which is on a voluntary basis, is carried out by "recruiting" officers who are mainly responsible for it. The Depot Commanders are, however, authorized to enlist a certain percentage.

In addition to the Army Reserve, complete units of the Territorial Army exist, which in time of war can be embodied into the Regular Army. These units carry out annual training as laid down for them.

The University Training Corps and National Cadet Corps encourage and provide opportunities for the military training of those studying in Universities and Schools.

OFFICERS

Lastly a word or two regarding the Indian Army Officers. The officers are taken in at the age of 15–17 years in the Joint Services Wing of the National Defence Academy, where future officers of all three Services study for two years. After this they all go to the particular training establishment of the Service in which they choose to serve, which in the case of the Army is the Military Wing of the National Defence Academy. Here they are trained as gentlemen cadets for two years, and on passing out they are posted to various units. In this posting as far as possible their wishes are met.

On joining a unit an officer is, for the first three or four years of his service, mostly out on courses. After that he has a more settled life, but attends a number of courses right through his military career, as in the British Army. In addition officers are required to pass retention and promotion examinations before being promoted to the rank of Captain and Major.

Promotion up to a Major's rank is based on a time scale. No. 2 Selection Board chooses officers for promotion to the the ranks of Lieut.-Colonel and Colonel. Higher promotion is the responsibility of No. 1 Selection Board.

The officer training establishments are organized more or less on similar lines as those in this Country, and quite a number of Indian officers are sent here. There is in fact, and very naturally, a close resemblance in both these National Armies to our British system. Both sprang from the same old Indian Army. Both are imbued by its traditions and influenced by its past great history.

We must remember too that partition came suddenly and many changes had to be made quickly. Remember too that units in the old Indian Army were mixed. Complete transference of regiments according to their local or territorial names was quite impossible. Some regiments with their Hindu squadrons and companies went to India; their Mohammedan squadron or company going to Pakistan. In others the reverse was the case. What a break up; what a surgical operation; what chances for creating chaos; what a strain on loyalties. Officers and other ranks who had lived their lives together found themselves separated as it were overnight. Nothing can speak more eloquently for the firm grand old Army from which these two Armies have sprung than that this severing of the body was achieved without complete chaos, nay more, with such success. Anomalies exist and there have been hardships; hardships which I think we in England are quite incapable of truly understanding; but so truly tempered was the metal that it stood the test.

One problem common to both Armies is the difficulty of getting the age structure right. The vacuum caused by the withdrawal of so many British officers holding

senior appointments resulted in very youthful officers jumping overnight into very senior ranks. Excellent as this is in war, and good as it may be in certain cases in peace, it tends to produce a career problem difficult to solve. An officer passing well through the Staff College, for instance, finds himself coming up for command immediately on leaving. In some cases it is not even possible to get an officer of the requisite age and experience on the Directing Staff of the Staff College. Unless officers are to move round from appointment to appointment like a game of musical chairs, they will have to retire very young. The pension and non-effective vote is likely to soar. These matters will be sorted out in the fullness of time.

In India, since partition, command has been exercised by Indians. Many British officers hold technical posts, others have high ranking advisory positions. The Commandant of the Staff College is a British officer, as is the Commandant of the School of Infantry.

Club life in the cantonments goes on as before the War. Money is scarce and people have to pull their horns in just as much in India and Pakistan as at home. Nevertheless the weekly dance takes place, the tennis courts are full and the libraries, bars and usual club amenities are still there.

Mess life goes on in the same way and the new corps of officers are jealously guarding all their mess privileges. They obviously believe in the mess system and are happy in it.

DISCUSSION

COLONEL H. R. STRANACK: I should like to ask the Lecturer whether there is any fear of those two armies having to fight each other, for that appears to be the reason for which they are training.

THE LECTURER: I do not think that gets the picture in perspective. This is not a forum for a political discussion in any shape or form. The two armies, as armies, are training to be fit to go to war. I cannot bring myself to believe that either one of them really wants to cut the throats of the other among whom so many of his old friends must still live.

LIEUT.-COLONEL R. W. TOBIN: I should like to ask two questions with regard to the six Gurkha regiments which are left in the Indian Army. Are they included in the zonal recruiting? I take it that there is no question of allowing Indians to enlist in Gurkha Regiments and vice versa. Secondly, could the Lecturer let us know what system of training there is for giving the Gurkha a full-blooded commission (a) in a Gurkha Regiment, and (b) in an Indian Regiment.

O

d

S

it

rs

it

S

t.

se

1t

en

ly

re

ng

THE LECTURER: I am afraid that the answer to the question is a little beyond me. I do not know whether any member of the audience can throw any light on it. I imagine that the Gurkhas will remain Gurkhas and that the specialized training structure is the same for them as for the rest of the Army.

SUB-LIEUTENANT M. M. JOHRI, Indian Navy: The fighting in Kashmir must have presented the two armies with new problems, for instance, the cold in the Winter. The Lecturer has been there recently, and it would be interesting if he could tell us whether they are learning how to fight in snow and so forth.

THE LECTURER: Yes, I have kept in close touch with them, and I think that they have learnt something which we can learn from them. They know how to move about in the hills, and they have their M.T. going into country which anyone would have said was fantastic before. They have also built roads in areas where one would have said that roads could not be built. I think that the lessons which both armies learned in Kashmir would have been of inestimable value to the armies fighting in Korea.

LIEUT.-COLONEL L. V. S. BLACKER: May I add a word to the story of Asian-Aryan chivalry to which the Lecturer has referred.

In 1878 the Russians brought off one of their customary incursions into other peoples' countries and, as a counter-measure to that, the Indian Government sent an envoy to look after their interests involved, and he was accompanied by an escort of the Guides commanded by Lieutenant Walter Hamilton, V.C. Before they had been there long a mutiny broke out amongst the Afghan troops, who were compelled to attack the British Residency. The Residency was defended by the escort, half of which were Muslims, and the other half Dogras, Sikhs and Gurkhas. By the afternoon, after bitter and desperate fighting, all three British officers had been killed or mortally wounded, and the Afghans invited the surviving Muslims to surrender. At that stage they could have surrendered without discredit having fought a magnificent battle all through the day, and there being nothing left to defend. It is to the eternal glory of the Muslim portion of the escort that they refused to surrender because they knew that the Afghans would massacre their Sikh, Dogra and Gurkha comrades, and for that reason they fought on until the last man was killed. I think it may fairly be said that in spite of two World Wars, no feat of arms has surpassed or even equalled that most chivalrous exploit of 3rd September, 1878. Had the position been reversed, and it had been a question of the non-Muslims, the Dogras, Gurkhas and the Sikhs being in a position to save their lives by surrendering and sacrificing their Muslim comrades, they would have done no less.

COLONEL GIDLEY-KITCHEN: I should like to endorse all that the Lecturer has said. I have been fortunate to have spent just over two months in India and Pakistan this Summer—in an unofficial capacity—and I was able to see a great deal of the Army as well as the rest of life in India. I had not been in India since 1924, so there was a large gap, but I must say that the one thing which struck me was that the spirit which we knew in the old days was very much there to-day. I was also told by many of those in the Indian and Pakistan Armies that they were proud of the structure and foundation laid by the British on which they had built.

I was fortunate enough to be in Lahore when Field-Marshal Sir Claude Auchinleck came there and was given several ceremonial parties to say nothing of cocktail parties. I can assure you that he was a very welcome guest as anyone else would be.

My son, who had never been to India before, accompanied me on the trip, and he was very much impressed by it. Everywhere we went we were treated as welcome guests; travelling by rail, by air, or whichever way we went, we could not have had a more pleasant journey.

There are, of course, certain disadvantages in India which are inherent, but I would strongly appeal to those who have the spare time to visit their old units, especially at this time because the Pakistan and Indian Armies are feeling their feet in very difficult circumstances, and every sympathy and encouragement they can get will be very well repaid, not only to the individuals who give it, but also to this Country and to the Empire.

GROUP CAPTAIN COOTE: It is an interesting sideline on the spirit and aims of the Indian forces to mention that the Pakistan Air Force has started promotion examinations for their officers, and they have asked us if their officers might sit for our examinations, set and marked by our own examiners, so that we can test their standard.

BRIGADIER CHARRINGTON: Would the Lecturer tell us how recruiting is progressing in the respective Countries?

THE LECTURER: I cannot really answer that question. The impression I have is that recruiting is progressing quite well. I think that they are having difficulty over officers for much the same reasons as we are, and there is no doubt about it that, although I am expressing an opinion which might almost be dangerous to express, their officers are very inadequately paid. We had large allowances when we went out there, and they were based on the fact that we were separated by a few thousand miles of sea from our homes; but if a man has his home in Bangalore and is stationed in Kashmir, it is much the same thing. They feel the pinch on a low rate of pay with virtually no allowances.

MAJOR KIRKE: Would the Lecturer tell us what was the position of minorities when their armies were incorporated into the Indian Army or into the Pakistan Army? Perhaps he would also be good enough to tell us what the position of potential officers of a religious minority might be in either Country.

THE LECTURER: Broadly speaking, I think that they are doing their best to get away from the minority problem. I do not think that there is any question of a Christian not holding a commission in the Indian Army, but whether the question is more tricky with regard to the big break—and let us be candid, there is a terrific break between the Hindu and the Mohammedan at the moment—is another matter. We all pray that the gulf will be bridged, but it does exist now.

Sub-Lieutenant S. S. Dighe, Indian Navy: With the Lecturer's considerable experience would he state whether he believes in the martial and non-martial races in India?

THE LECTURER: I think that the Indian Army has solved that problem for itself, because it has opened up recruitment to the whole of the Country and thus freely recognizes that in the modern India every man, irrespective of his antecedents, is fit to be a fighting man and will fight as well as any other. There is, however, always a bit of glamour attached to it. Even our Cavalrymen like wearing their spurs!

A MEMBER: With regard to the previous question, if a Gurkha wishes to join the Indian Army and work his way up, I do not think that there is anything to prevent him.

THE LECTURER: We have Gurkha units in Malaya. We draw our recruits from Nepal, and nothing could speak more highly for the understanding which exists between our two Countries than the way in which we can recruit these Gurkhas, and pass them through India out of Calcutta on their way to Malaya.

Many of you will know that there is often trouble with soldiers and that a silly incident by a Gurkha in Calcutta could create a situation overnight. While I was in Calcutta such an incident did arise, but it was met in a sensible, forthright and honest manner and there was no trouble. The soldier was punished and the remainder of the Gurkhas passed through the transit camp with every facility being given to the British and Gurkha officers concerned with the business. An excellent illustration, I think, of the complete understanding between our two Countries.

COLONEL H. R. STRANACK: I should like to endorse that which the Lecturer said concerning the expenses of an officer. I was in Pakistan with my regiment this year, and I found that pride in the mess is still as great as ever it was; but messes have to be kept up. The 2nd Lieutenant with his 300 rupees a month plus 85 rupees allowance will find it difficult, particularly if he is a married man having to maintain a private establishment as well. It always has been rather difficult?

LIEUTENANT G. S. HATCH, R.A.: Could the Lecturer tell us to what extent the equipment of the two armies is standardized, and to what extent they depend on outside supplies?

THE LECTURER: They both stem from one common origin. Everybody starts off with a rifle, the Artillery start off with a gun, and the Army Service Corps with a vehicle. The future policy of these two armies is for the equipment to be of their own selection. There will be two conflicting interests, one of which will be the Commonwealth interest, and the other will be a question of where a weapon can be bought and who can supply it. At the present moment the equipment is that which they had when the two armies separated.

LIBUT.-COLONEL G. A. MACMUNN: Referring to the last speaker's remarks, perhaps I might point out that by virtue of the location of the armament factories in the undivided days, India got all the factories and Pakistan had to start off without any at all. I think I am right in saying that Pakistan is striving very hard to establish armament factories as part of her general industrialization, but until that time arrives, she is dependent either on Britain, or on India to some extent, for her arms, ammunition and equipment.

LIEUTENANT-COMMANDER C. V. S. MALLESON, R.N.: I should like to know whether there is any freedom of extra-territorial travel between the two halves of Pakistan for the military forces, or do they have to go round by sea?

THE LECTURER: I am afraid that this is a bit out of my depth. They are separated, but obviously they can move from one Country to another. If you have the idea that when a Mohammedam goes into India he gets his throat cut or when an Indian goes into into Pakistan a similar thing happens, you have completely a wrong impression. You can go into a bank in Delhi and be escorted to the manager by a Mohammedam chaprassi.

A Member: To what degree is the present Indian Army equipped with the most modern devices, for example, tanks or armoured vehicles.

THE LECTURER: I could not answer that question in detail, but I can tell you that they started off with equipment which was left over. They will purchase new equipment insofar as it is suitable.

India is a Country of rivers, and the rivers are crossed by bridges. Those bridges will only bear a certain load, and the weight of modern equipment tends to be very heavy. They may find it desirable, therefore, to go in for a lighter form of equipment than that used for fighting in North-West Europe.

THE CHAIRMAN: I am sure that everyone—especially my old friends and colleagues of the Indian Army—shares my delight and pride to hear from one who knew, understood and loved India, that all is well with the Army which we served and to which we owe so much. As the Lecturer said, it had the most terrific break. I do not think that anybody who was not in India at the time of partition can realize what that surgical operation meant. I almost went down on my knees to plead that the armies should be divided on numerical and not communal lines, I urged that an army was not a collection of men with rifles and swords, but that it was a living entity with one heart, one soul, one brain, one set of organs, and that if you performed this very drastic surgical operation, you were taking a great risk. It must have been made of very true steel to have survived as it has done.

If I might detain you for two minutes I should like to tell you a story which illustrates the feelings which animated both armies at that time. I came out of my house in Delhi' one day in the beginning of September when the riots were very bad. Outside the gate was a ragged old man who saluted me. I acknowledged the salute and was about to get into my car when the man burst into tears and said, "Sahib, do you not recognize me? I am Ali Sher." He had won the I.D.S.M. in Flanders in 1915, and had subsequently been Rissaldar Major of my Regiment. When I enquired what had happened to him, he told me that his village in Patiala had been overrun, that his house and all his possessions had been destroyed and that all his family had been killed. I comforted him as best I could and looked after him until I could arrange his passage to Pakistan. A week later one, Narain Singh, a very tall Sikh who had followed Ali Sher as Rissaldar Major of the Regiment, arrived to call upon me. To my enquiry as to how things were going with him, he said: "Not very well, General Sahib. I had three properties in the West Punjab and they have all gone." I said, "What about your family?" and he said, "Fortunately they were in India when the riots started and they are all right." I said, "Well, thank God for that. You are better off than Ali Sher." At once his eyes filled with tears and he said, "Sahib, what has happened to him? We may be in different Countries now, but we are brothers and I will do anything I can to help him." That is still the spirit, despite all the clouds in the sky, which animates both armies.

If you have enjoyed General Gale's lecture half as much as I have you will be unanimous in carrying a very hearty vote of thanks to him.

The vote of thanks was carried unanimously, with acclamation, and the meeting then terminated.

THE INFLUENCE OF THE LATE WAR ON TANK DESIGN

By BRIGADIER O. E. CHAPMAN

On Wednesday, 29th November, 1950, at 3 p.m.

LIEUT.-GENERAL SIR BRIAN HORROCKS, K.C.B., K.B.E., D.S.O., M.C., in the Chair

The Chairman: It is my very pleasant duty to introduce the Lecturer—much pleasanter than having to give the lecture myself. Most of you no doubt know Brigadier Chapman; to those of you who do not, I would like to say a word or two about his qualifications. He is, as you know, of the Royal Tank Regiment, but he has nearly always been on the technical side. He did a technical course before the War followed by a year's attachment to factories. At the beginning of the War he was concerned with the production of armoured plate and then was sent to open the new wing at the School of Tank Technology, where he remained until he took over his present job, which is Chief Inspector of Fighting Vehicles. I think you will agree with me that nobody could be in a better position to give this lecture.

LECTURE

Policy in tank design is still a controversial subject and for many years has been rather volcanic in nature. Normally it simmers at a dull red heat, but if you throw anything into the crater, such as a leading article in *The Times*, there is an immediate reaction with a lava flow of letters to the Editor. In official circles there are less publicized, but no less heated controversies, and during the last war there were major eruptions, when smoke, flames and personalities were shot out into the outer darkness. Hence, when I received a quite unexpected letter asking me to give this lecture, I was rather appalled at its perils, and so I decided to try to deal with the subject purely from the angle of a Technical Staff Officer, whose job is to endeavour to understand the problems of both the pure engineer and the regimental soldier. This is indeed my sole qualification for being here to-day, for I have never been directly responsible for Tank Designing, nor was I in action in the last war.

On the other hand, reverting to my volcanic analogy, I have been like a seismologist perched in a fairly safe observatory on the edge of a frequently active crater, but near enough to see a good deal of what has happened.

As a further safety precaution I will keep strictly to the title of the lecture as skilfully chosen i.e. "The *Influence* of the late War on Tank Design" and do my best to avoid speculation, prophesies or politics.

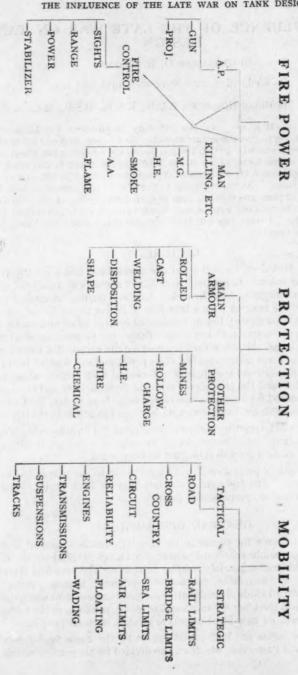
GENERAL DEVELOPMENT

To attempt to trace the course of the simultaneous development of tanks in the four Countries mainly concerned—Great Britain, the United States, Germany and Russia—would be an impossibly complex task, as certainly the first three nations each produced an incredible number of different models, variants and improvizations with all kinds of combinations of guns, armour thickness, engines and running gear. I will therefore try to generalize on the trends from the technological aspect and not dwell on individual models or relative national progress.

Most tank problems are best considered under the three fundamentals, Fire Power, Mobility and Protection, which are sub-divided for the purpose of this lecture in Chart I.

CHART I

TANK CHARACTERISTICS



Before going on to deal with the various headings, we should take a brief look at the evolution of the tank as a whole. This I have compressed as much as I can in Chart II. It is divided into three phases, 1939, when the War started, Mid War and The Last Phase. As the subject is the "Influence of the War on Tank Design," we can include under 1939 not only the tanks that were in the hands of troops, but also some that were then in a reasonably advanced stage of development. The same applies to the Last Phase. This must not be taken too literally, because the Phases are intended to represent the generalized world-wide position at the time, and it would be misleading to show unrepresentative figures on the chart, on account of a single advanced scheme on the drawing board.

GENERALIZED TANK DEVELOPMENT

Period	LIGHT					MEDIUM				ASSAULT					
	Weight Tons	H.P.	Arn	ont nour isis ins.	Gun mm.	Weight Tons	H.P	Arn	ont nour isis ins.	Gun mm.	Weight Tons	H.P.	Arn	ont nour sis ins.	Gun mm.
1939	5 1	90 140	14	·55 ·63	8 20	13	150 390	14 30	.22 1.2	37 47	12 27	90 200	60 78	2·4 3	8 47
Mid War	8 13	140 250	15 33	·6	37 40	25 45	250 650	60 122	2·4 4·8	40 88	39 56	300 650	100	4 6	75 88
Last phase	7·6 18	150 250	15 38	·6 1·5	40 75	30 50	500 690	90 140	3·5 5·5	75 88	40 70 (180)	690		6 12 (16)	88 128 (150)*
Rough × increase	11	13	1	2		21/4	21	5	1	-	3	31	2	1	1577

* German Prototypes

CHART II

I have also ventured to divide into Light, Medium and Assault. This may also lead me into trouble with purists with different theories of how to use tanks, but some division was necessary. Very roughly by Light, I mean tanks for reconnaissance and airborne use. By Medium, I mean the Medium or Cruiser class. Sometimes these may be used more for the reconnaissance role and sometimes as the main battle-tanks. Indeed oscillations of military thought forbids the rigid allocation of any model to a particular category. What may be the battle tank of to-day may be the reconnaissance tank of to-morrow and, of course, the "General Purpose Tank" is specifically intended for several roles. Under Assault Tanks I have included those which were intended for assaulting positions in close conjunction with infantry when they were designed.

At the start of the War, both sides had a large majority of light tanks, mainly the result of a shortage of money in peace, but also due to the great emphasis on mobility that was the reaction in military thought from the immobility of the 1914-18 War. Cruisers, or medium tanks had been developed, but had not been made in large numbers. Much has appeared in print about mobility in general, and the story of our cruisers in particular, but from the technical point of view, the outstanding influences of the War were the increases of gun power and armour and not of mobility.

To trace one of the beginnings of the gun-armour race, I think we should go back to a step in policy taken by Sir Hugh Ellis, the great tank leader in the First

World War, in about 1935, when he was Master-General of Ordnance. Referring to the usage of tanks in that war, he demanded a tank with armour that would keep out any ordinary gun it was likely to meet as it advanced with the infantry: speed and armament could be sacrificed. Price was still a major consideration. Sir John Carden met the specification with the Infantry Tank Mark I which only had a speed of about 5 m.p.h. and one .303 or .5in. machine gun. The important thing was that armour jumped in a single step from 14 mm. to 60 mm. This was followed by the Infantry Mark II or the Matilda, a much larger machine. (As a matter of history the code name Matilda was originally given to the Infantry Mk. I in 1935, but only came into popular use for the Mk. II.) The forerunner of the Churchill tank under the name A.20 was also on the drawing board as early as the Autumn of 1939.

Now, although the Germans had some large tanks under consideration in 1939, yet they had only just increased the gun power of the Pz.III to the short 50 mm. gun (the 75 mm. of the Pz. Kpfz IV had a low velocity) and it had only 30 mm. of armour. Thus, the Matilda could knock out any of these tanks with its 2 pdr. whilst its 75 mm. armour kept it very immune, particularly as there were only a few Pz.III (and all did not have the 50 mm.) at this time. The dozen Matildas with the British Expeditionary Force in 1940 were rapidly overrun, but it seems to me that the realization of the potentialities of the Matilda by the Germans started them off on increasing the gun-power and armour of their tanks of which we were to see the result in Africa in 1941.

The French had many more heavy tanks than we had Matildas, for indeed they had never abandoned the ideas of 1916–18. Their armour was a little thinner, but their 47 mm. gun was better. Owing to the way they were used they had little effect, and after the fall of France they could not have influenced the Germans very much. Of course, soon after this, it was Russian and not British tanks that set the pace to the Germans. Indeed, before 1939, the Russians mounted 45 mm. A.P. guns and some of 76 mms., but their armour was quite thin, although their T.34 may by then have been on the drawing board.

In the event, it was probably the Matilda, as the most powerful tank the Germans met in 1940 and were likely to meet again, that exerted the first war-time impulse in the progress of tank development. It was a pity that their influence was exerted as captives in German Design Establishments instead of on the battlefields of France. Later, the Matilda had her day in Africa, but the German counter measures were on their way before this.

Returning to our Chart II, we can see that the true Light tank made relatively little progress. In so far as tanks of less than 10 tons weight are concerned, they might have been eclipsed had it not been for a demand for small airborne armoured vehicles. The reconnaissance role was covered by armoured cars with fairly good cross country performance, or sometimes by carriers, or by tanks of 17 to 25 tons or more which formerly would have been called mediums or cruisers.

The Mediums have remained the most numerous and some, such as the Centurion, the Panther and the T.34 are very powerful with what, in 1939, would have been regarded as heavy armour and gun for an Assault tank.

In the Assault Class we have risen to some 70 tons with guns as large as 128 mm. with high velocities and armour 10 inches thick. The Germans contemplated even larger tanks.

In the bottom line of Chart II, I have attempted to show the magnitude of the increases. You will see that, within their classes, the ratios are mostly between

twice and three times the figure at the beginning of the War. Of course, by taking special tanks you can make these ratios almost anything, but I think the figures indicate the average trends.

LIMITATIONS ON DIMENSIONS AND WEIGHT

At this stage I think I should touch upon limitations on dimensions. This should strictly be dealt with later on under strategical mobility, but as it vitally affects the designer's problems, and its very widespread repercussions may not be apparent to everyone, I think we should deal with it here. It is also a matter in which the impact of war had a very definite effect on design, particularly British design.

In 1939, I think every General Staff insisted that tanks must go by rail, but the railway loading gauges varied considerably in different Countries, the British being the smallest. Up to about 1939, tanks had to travel on any line in the United Kingdom, i.e. to this gauge, which has a width limitation of 8ft. 9ins. The Matilda and the early Cruisers pass it. The first easement was for restricted travel on British lines, i.e. over most lines but not all. This permitted 9ft. 6ins., and the Churchill was designed to this.

But the Continental gauge allows 10ft. 4ins., or 12ft. 11ins. for restricted travel. Thus, before the War the German designer could make his tanks no less than 19 inches wider than the British. The Pz.III and IV did not use all of this, being oft. 8ins. wide, and were probably kept to this for convenience on roads or bridges, or possibly so that they could just go on British railways! They are, however, eleven inches wider than the British designer was allowed before 1939, and eleven inches means a great deal in a tank design. This is what made it easier for the Germans to increase gun power. The Tiger was 12ft. 3ins. wide but could be reduced to 10ft. 4ins. by fitting its narrow tracks and taking off some parts. The Russian K.V. was 11ft. wide. It was not until quite late in the War that the British limit was raised beyond oft. 6ins., and the Comet, which is 10ft. 11ins., was the first British tank designed to the Continental limits.

Thus, a very definite influence of the late war was the raising of dimensional limits.

As regards weight, the British limit was 18 tons until about 1937, when our Cruisers were beginning to take shape. It was then raised to 24 tons and it would seem that the Germans at this time had roughly the same idea. How the War broke down these limits is shown by the fact that the Centurion is nearly 50 tons and the Jagd-Tigers were over 70. It is, however, well to remember that we were up to 431 tons with the Mk.VIII tank in 1919.

SPECIALIZED ARMOUR

Although it is perhaps hardly covered by the title of the lecture, one should just mention the great development of what were known as "The Funnies," i.e. that great series of armoured adaptations for bridge-laying, flame-throwing, mine-sweeping, recovery vehicles, troop carriers, armoured command vehicles and R.E. vehicles, and bull-dozers.

These were all developed for the special requirements of the War and were based on tank chassis. They are, however, a special subject and this afternoon we have only time for the standard fighting tank.

FIRE-POWER

ARMOUR PIERCING WEAPONS

CHART II shows that the outstanding development of the War is the enormous development in the size of the gun carried. I have not given a ratio of increase for this, but the gun aspect is expanded in Chart III, and I have given ratios of increase for the various gun characteristics. You will see that the penetration at 30 degrees at 1,000 yards has gone up four times, the calibre and length of gun 2½ times, and the weight of both gun and a complete round no less than 16 times. The problem that this sets the designer can well be imagined; it is a headache, for instance, to fit sufficient rounds inside the armour.

GUN DEVELOPMENT

The Minister of the Line of th	Calibre MM.	Length Ft.	Weight Lbs.	Amn. Wt. Lbs.	M.V. Ft./Sec.	Penetration Steel Shell 100 ^x /Normal MM.	1000 ^x /30 ⁰ MM.
1939	37-50	6-7	180-350	3-51	2200-2600	60-85	37-40
Mid-War	50-88	10-17	570-2800	9-33	2000-3000	90-140	40-80
Rough x	75-128 21	14-23 21	2000-7000	25–120 16	2700-3300	160-290 3	130-200

CHART III

Existing A.A. and other guns were often adapted, but were seldom ideal without modification. The War has in fact made clear that a specially designed tank gun is desirable to obtain the necessary high velocity with the minimum weight, the most convenient shape of cartridge for handling in the tank and suitable breech arrangements, but development has been mainly in size and no new principles have been employed, except for certain projectiles.

Naturally the urge to penetrate more and more armour led to attempts to get through the armour in other ways than by piercing a hole with a hard steel shot or shell fired from a heavy gun. The most important of these were the use of tungsten carbide cores, the hollow charge principle, and rockets.

Tungsten carbide gives a useful increase in penetration, but it is not revolutionary and the same sort of gun is required. Hollow charge projectiles in the form of Piat, Bazooka or Panzer-faust fired at very short range by infantry, formed a very serious menace to tanks in close country. They affected design by encouraging the use of skirting plates to give double skinned protection over part of the hull, but were not very satisfactory when fired from a gun. Rockets have only secured any success when fired by aircraft. They caused a good deal of thought, but cannot be said to have caused any change of design up to the end of the War.

Thus, we are left with the possibly surprising conclusion that, in spite of intense efforts to enable one tank to knock out another by some other means than a hard steel shot fired from a large and heavy gun, there has been little fundamental change apart from scaling up.

MAN-KILLING WEAPONS

Under this heading I will consider machine guns, H.E., flame throwers and smoke.

Some of the inter-war tanks simply bristled with machine guns, the British Independent had five, the 16 tonner three (five in some models), and I believe one American tank had seven. There were similar tendencies in other countries.

By the end of the War many tanks were simplified to contain only the main armament and a coaxial machine gun, with perhaps one other in the front of the hull and/or another perched on the top of the turret for A.A. use. The reasons for this reduction were as follows:—

- 1. The difficulty of housing men to fire them.
- 2. The weakness in the armour caused by each mounting.
- The periods in Africa and Russia with very open country and long ranges, where the main enemy was the hostile tanks.

For smoke and H.E., it is not possible to provide an effective shell below 75 mm. or 3 ins. in calibre. Hence, when the A.P. weapon was only of 37–50 mm. calibre the Germans and British provided special close-support tanks in which the A.T. gun was replaced by a low velocity 3-in. mortar or howitzer. The Americans and French had tanks in which both A.T. and 3-in. weapons were mounted.

The need for the second H.E. firing weapon and the close support tank ceased when the calibre of the A.T. gun reached $\[jin._f i.e. \]$, when it could also fire an effective shell. For a short time there was a genuine dual-purpose weapon in the 75 mm. in the Grants and the Shermans, when the medium velocity 75 mm. gun had adequate armour penetration. Soon, however, the 75 mm. guns had to have velocities of about 3,000 f.s. Then the walls of the shell had to be made so thick that there was not much room for H.E. or smoke. The guns wore out very quickly and it was difficult to place the shells on the ground in the right place owing to the flat trajectory. The occasional solution of using a reduced charge is not nearly so simple technically as it seems and, in any case, the enormous cartridge case needed for the high velocity round must still be carried.

There was no general return to the close support tank, but increased use was made by the Germans of well-armoured *Sturm-geschutze* or assault howitzers and, by the Allies, of less well-armoured self-propelled guns firing H.E. shells of 75 to 105 mm. calibre. Light and the smaller medium tanks retained the 75 mm. as a dual purpose weapon.

It is perhaps surprising that the tremendous use of aircraft has had very little influence on tank design. As far as normal tanks are concerned, about the only defence is by machine guns perched on the top of turrets for occasional and rather optimistic A.A. use. A few special A.A. tanks were designed, but were not much used. The importance of the subject depends on relative air superiority, but self-contained air defence for a tank is likely to interfere with its suitability for its main role, and separately provided air defence was mainly relied upon.

Flame throwers probably reach their greatest effectiveness when mounted in a heavily armoured vehicle. They were used to a fair extent in special roles and not in normal tank units, but their fitment has to be considered in the design of standard tanks.

SIGHTING AND FIRE CONTROL GEAR

Sighting and Fire Control gear increased enormously in complication during the War. In 1939, it consisted of little more than a telescope of which the graticules could be moved to put on the range. The first demand, brought on by the extremely long ranges used in Africa, was for greater magnification and, as a high magnification was not suitable for all purposes, this lead to dual magnification. Then, to secure better protection and wide-angle vision, the sighting was combined with the gunner's observation into a periscopic combination, and a remarkable all round improvement was obtained. Later, when the tank gun could fire a decent shell, the sight had to cater for large angles of elevation and ultimately for indirect fire; I think the latter would have shocked the tank purists in 1939, but it seems to have come to stay. Pictures of American tanks in Korea show them to have been run up on special earth ramps with the intention, apparently, of firing their 90 mm. guns at about 40 degrees and at enormous range. Towards the end of the War range finders were built into some turrets.

STABILIZATION

Although before the War British crews were taught to fire on the move without any mechanical aids, the accuracy was not enough and stationary fire became universal for the main gun.

The Sherman had its gun stabilized in elevation, but no great use seems to have been made of this feature and it was technically inadequate. At the end of the War several countries were experimenting with stabilization for both elevation and traverse, and the Centurion has a stabilizing device.

The effect on tank design of these more advanced sighting and fire-control gears, in addition to the power traverse needed with heavy turrets, was to increase the cost and complexity of the fighting compartment very greatly, and to intensify the problems of training both crew and maintenance personnel. Another result was very heavy demands for electric power which, added to the wireless load, called for large batteries and generators and, ultimately, auxiliary engines.

JAGD-TANKS

I now come to a point which I think is very important and is really the German answer to the design problems set by the War.

In trying to satisfy the demand for a bigger gun without sacrifice of protection or increase of weight, there is another factor that can be sacrificed—that is, traverse. That is to say, if you will give up the all-round turret and accept a limited traverse of about 20 degrees each side of the centre line, you can mount a size larger gun with little change of armour basis, weight or speed, and the resultant machine is easier to manufacture. The handicap of limited traverse is mitigated if the tank steering system permits turning on its own ground.

The engine, transmission and suspension of the Panther and the Jagd-Panther are the same. The armour-basis and the weight are nearly so, but the Jagd version is easier to manufacture. The Jagd-Panther has an 88 mm. gun which will pierce about 170 mm. at 30 degrees at 1,000 yards, whereas the Panther carries a 75 mm. which will only pierce 120 mm.

This principle was applied quite consistently by the Germans for no less than eight models, there being Tank and Jagd-tank versions of the Pz.III, Pz.IV, Panther and Tiger. In each case the Jagd version had the gun of the next size larger tank.

The Russians followed the same plan. The idea was noted and taught with some emphasis in the last years of the War by the School of Tank Technology, and it has again been epitomized effectively and briefly in an article by Major J. F. Miller, R.T.R., in the Royal Armoured Corps Journal, published in July, 1950.

To build two such models for each chassis is a very useful and comparatively cheap way of insuring against under-estimating the enemy's rate of development. During the War we frequently and hurriedly developed a new gun that would just deal with the tanks we had met, but by the time we got it into action the enemy had jumped up their armour and the new gun was inadequate. If the Jagd version had been produced simultaneously, there would have been at least something that could have dealt with the new opponent. It is not suggested that a limited traverse tank is better than a turreted tank, but it is sometimes a means of carrying a larger gun without going into a larger logistic class of tank.

British ideas have been fogged by the use of the term "Self-Propelled gun" for every machine that carried a gun without 360° traverse, ever since an 18 pdr. was first perched precariously on a tank chassis about 1924. It then became a sort of gentlemen's agreement that if you had a turret that went all the way round, the machine was manned by the R.A.C., but if it did not go all the way round, it was "S.P." and obviously must be manned by Gunners. It was forgotten that we had no turrets on our First World War tanks. Nomenclature was in fact our master and not our servant.

I suggest that, as the term "Limited Traverse Tank" is very cumbrous, we should adopt the word "Jagd-tank," and that by doing so, even if we offend some etymologists, we shall clarify our thought. After all, our code word "Tank" was adopted by most of the World after the first World War, and I do not see why we should not acknowledge this essentially German development in a combination word.

PROTECTION

ARMOUR

THICKNESS. Armour increased in thickness during the War from about three inches for vertical plates on the Matilda, to about six to eight inches on the Tiger B, and ten inches on the Jagd-Tiger. This is not such a great increase in protection as in the power of the guns liable to be met, in fact armour has fallen somewhat behind the gun in the gun versus armour battle.

I do not think there is great advantage in tracing the various stages of increase in armour protection in terms of mere thickness, but I will touch on some more technical points.

QUALITY. It is perhaps surprising that with the three shief scientific and steelmaking countries of the World at war there was no basic improvement in the shotresisting power of steel plate. No rolled plate made in 1945 was better than any which could have been made in 1939. Indeed, some face-hardened and multilayer plates used to some degree in 1939, were dropped owing to difficulty of production. Considerable advances were, however, made in producing plates up to normal standard with a reduced percentage of alloys such as nickel, chromium and molybdenum.

CAST ARMOUR. There were advances in the quality and use of cast armour. This was originated by the French some time before the War and was used for turrets and other parts in the Matilda and the Infantry Tank Mark I, but not by the Germans.

As sizes and thicknesses increased, these large castings presented a constant challenge to the foundries and metallurgists and were a severe tax on foundry equipment and heat treatment furnaces.

Welding. Great progress was made in the welding of armour, which was started only shortly before the War. This was a great technical achievement, as steels of armour composition were held to be unweldable. It was important, because the enormous number of heavy machine tools that would have been required to machine plates for ordinary riveted joints would necessarily have reduced the numbers it was possible to make. The welding of joints greatly simplified the problem of bullet splash. Much of the welding can be done on edges flame cut by oxyacetylene gas, which is cheaper and quicker than machining. Welding also facilitated the problems of making tank hulls watertight.

Although these matters are technical and not tactical they are certainly due to the influence of the War, which provided the urge and the money for making many special casts of steel and of firing at hundreds of expensive plates and welded structures.

ARMOUR DISPOSITION. The thickness of armour was disposed more scientifically after battle experience. Until the War there was a strong tendency to call for immunity all round the tank against some specified weapon, i.e. equal armour thickness. If it were suggested that it would be better to put more in front, someone was sure to say "Ah, but what will happen when you are retreating, or someone holds their fire and hits you up the back?"

But, as guns got bigger, far from being safe from every direction, it was difficult to be safe from any direction. Much effort was directed towards estimating the probabilities of being struck from various directions and in trying to secure actual figures from the battlefield. This led to putting much thicker armour on the front than elsewhere. In thinking out these matters it is essential to consider not what could happen to one tank, but what disposition of armour is most likely to get the largest proportion of, say, a hundred tanks through an action.

BALLISTIC SHAPE OF HULLS

There was an improvement in the ballistic shape of tanks as the War progressed. Early tanks had many small plates and re-entrant corners which formed weaknesses and blast traps. The chief of these re-entrants was formed by the vertical plate usually employed to carry the driver's aperture and a machine gun, and a nearly horizontal glacis plate.

In the Sherman and Russian T.34 these plates were combined into one large thick plate, sloped at about 55 degrees (which is an efficient angle), over which the driver could look through a periscope. The T.34 got most credit out of this arrangement, possibly because it was thicker in most places than the Sherman, but the practice was rapidly followed by the Germans in the Panther and it is now almost standard.

It is sometimes suggested that the Germans or Russians "invented" the principle of inclining plates. This is hardly true, because the influence of angle of attack on penetration has been well-known for years. The Covenanter has a very angled turret and the same design was used for the Crusader. However, the Russian designer of T.34 used it very skilfully and produced a thoroughly well-balanced hull.

The use of castings, either alone or in conjunction with rolled plates facilitated this cleaning up process. The Russians were particularly successful in getting a low

and comparatively inconspicuous silhouette. Roof plates were thickened up from quite thin plates to about an inch as a protection against high-angle H.E., mortars, air-burst shell and fire from low-flying aircraft.

PROTECTION AGAINST SPECIAL PROJECTILES

The above remarks apply to protection against ordinary A.P. projectiles, but the advent of hollow charge projectiles such as the P.I.A.T., Bazooka and Panzer-Faust, which went through alarming thicknesses of plate, caused an intense search for a remedy. One method is to fit a thinner plate some inches in front of the main armour to burst the projectile at a distance. It is extremely difficult to fit such plates in practice, except in the form of skirting plates over the tracks and suspension, but this has been done in some tanks to give protection against hollow charge. These plates also protect the suspension from splinters and small projectiles.

ANTI-TANK MINES

Mines were one of the tank's worst enemies in the War. No device was produced that could be fitted to a normal fighting tank to enable it to traverse mine-fields. Flails were evolved as special mine-field clearing machines, but little could be done for the normal tank except to thicken up the floor plates and make them of a ductile material that would give better resistance to blast, and so reduce the risk of killing the crew even if the tank were immobilized.

FIRE RISK

One of the first clear technical lessons learned in Africa was that tanks went on fire when hit, not so much because the petrol was ignited, but because the charges of the ammunition were fired by hot splinters which pierced the cases. The risk was mitigated by enclosing the ammunition bin in armour about 6 mm. thick and, in some cases, water jackets were used. This added a good deal of weight, cost and inaccessibility. It also provides an excellent lesson on the importance of having really realistic peace-time trials, however great the cost. There were many tests before the War of firing at hulls and at petrol and fuel oil tanks, but I can remember none when a tank completely stowed with live ammunition was fired at.

MOBILITY

Chart I shows that mobility has many aspects. We have already touched on the effect on tank design of limitations of size and weight to meet bridging and other logistic limitations.

Tank		Class	Tons/H.P.	
Matilda	101	Assault	7.2	
A.13		Cruiser	23.4	Average
A.10-		Cruiser	VII MORE TI	13.8
Pz.III	•••	Medium	13.7	SA PROTECTS
T.34/85	· · · ·	Medium	16	
Panther		Medium	14.5	
Cromwell		Cruiser	21	
Sherman	1	Medium	13	Average
Tiger B		Heavy	10	13.6
Centurion		G.P.	12.5	Amoricans
Churchill	3017	Assault	8 25	

Mobility, in its more usual restricted sense of speed and ability to cross obstacles did not, broadly speaking, increase during the War, but it was a triumph of engineering that it did not decrease with the great increase in weight. The preceding list of approximate power/weight ratios for some typical tanks shows a considerable range, but both at the beginning and end of the War the average was about 13.7.

I can now only touch very briefly indeed on the developments of means by which mobility is obtained, i.e., engines, transmissions, suspensions and tracks.

ENGINES

In England in the 1930s, we had been carried away temporarily by the specious doctrine that tanks must be fitted with commercial engines if sufficient were to be produced in time of war. If one engine was not big enough, two had to be installed, as was the case with the Matilda. The War finally exploded this dangerous doctrine, not only for tanks, but to a large extent for "B" Vehicles too.

In addition to the bus engines, Britain brought back the Liberty just before the War. This was actually a World I aero-engine, adapted as a tank engine by a joint Anglo-American effort for the tank production for the offensive of 1919. With comparatively little rejuvenation it lasted right through to the Crusader. These were not enough, and during the War all sorts, sizes and shapes of engines were hurriedly developed in England and America. The Germans developed an excellent series of Maybach engines for the War, and these served them in good stead. For their larger tanks they had a water-cooled 12 cylinder Vee engine of 300 h.p. Only the Russians adopted Compression Ignition for all their tanks although the Americans did so for one engine.

Air cooling was used for some of the Shermans and their predecessors but not otherwise, although it was used in British tanks designed in the 1920's. Since the War, the Americans have developed a whole range of air cooled engines up to 1,000 h.p.

Thus, except in Germany and Russia, the engine story is not very tidy and I think I can do little more than say that all four Countries ended with a Vee 12 Water-cooled engine of 500 or 600 h.p. and were thinking of 1,000 h.p. These designs were based on aero-engines used on a reduced power rating for the arduous tank work.

The War called for more and more horse-power to move the heavier weights. There were no fundamental developments, but a tremendous amount was done to adapt the engine, its cooling and its auxiliaries, to the arduous service in the confined engine compartments of tanks.

STEERING AND TRANSMISSION

This is one of the most difficult tank problems, as it is entirely special to tracked vehicles. The War made it necessary to cope with the increasing horse-powers by using the power more economically by the regenerative principle, and to maintain ease of handling, even with much heavier machines. The Merritt-Brown system was probably the best, but its basic principles had been worked out by 1939, and the type that proved so successful was on the drawing board by October, 1939. The system adopted by the Americans just before the War lasted them almost to the end. In this case it was the Germans who had to progress furthest from their rather simple 1939 types, which were inadequate for their later and larger tanks. By the end of the War, the Americans were trying various automatic transmissions, but it is still a subject of debate whether this is an advantage or not.

SUSPENSIONS AND TRACKS

In suspensions, almost every conceivable arrangement of wheels, springs and bogies were used before and during the War. Perhaps the use of torsion bars by the Germans and Russians and the overlapping wheels of the Germans were novelties. There was little similarity by the end of the War, except in the widespreaduse of large rubber tyred wheels instead of the small wheels that had been popular.

Tracks were notable for the enormous size to which they grew. They tended, in most countries, to the cast manganese steel link with a plain pin through plain holes. This was a reaction from the complex and expensive tracks with which it was attempted to gain large mileage either by excluding grit, or by using a flexible rubberbonded joint.

The terrain over which the War was fought had a big influence here. During the African phase on dry ground, light narrow tracks were the simplest and best. In the mud of Russia and Europe wide tracks were essential. For some special conditions such as snow and swamp some small vehicles with tracks giving extremely low ground pressure were evolved, but they were not tanks.

I am afraid that this very brief treatment of the running gear of the tank does scant justice to the tremendous inventive and development effort put into it in every country. But the title set me was the influence of the War on design. The conditions of the War did not directly demand different running gear, but only indirectly, i.e. to carry the extra weights at the best speed.

As the engine designed in 1919 was used until 1943, and as the Merritt-Brown box and our present suspensions would have been just as acceptable for the Mark VIII in 1919, whereas our present guns and armour would have been quite ridiculous, it would appear that running gear development has been purely mechanical evolution. The effect of the War was to provide the money and effort for much faster development.

AMPHIBIOUSNESS

The War laid great stress on means of crossing water by swimming or wading. The urge for this came from the necessity for landings in France and elsewhere, and for the crossing of various rivers. The Americans in the Far East had many landings as they worked from island to island.

Whether it was a case of swimming with the D.D. attachment or deep wading, the designer was set a series of very tiresome problems to keep the water out of the numerous apertures represented by gun-mountings, turret joints, air, exhaust and vision apertures, and to provide special protection for electrical installations. At first these were solved by improvizations, but subsequently a great many of these devices had to be incorporated into the tank design from the beginning. Although each device was relatively simple, cumulatively they added much to the difficulty of design.

CORROSION, TROPIC PROOFING AND ARCTIC CONDITIONS

When water did get in, especially sea water, corrosion was likely to start. This, together with the effects of various tropical climates, led to much work on corrosion resistance, and tropic proofing. As a result, many components now either have to be specially designed and made of special materials (especially the electrical parts), or specially treated by plating or other means. This makes them still less like civilian products and needs much detailed attention in design and inspection. All this puts up costs and the difficulty of producing large numbers of tanks in time of war.

Arctic conditions resulted in other special requirements connected with starting, batteries, certain materials and lubricants and fuels.

RELIABILITY AND EASE OF OPERATION AND MAINTENANCE

The great distances over which the War was fought, over both land and sea, brought out the extreme importance of reliability and ease of maintenance. Defective machines tied up a tremendous number of skilled men from the unit to the base, in fact to the factories themselves, where additional spares and machines had to be made. Broadly speaking, there was an improvement in reliability during the War, new standards having been set by the Americans. In the early days, the British standard was low but it improved later. At first the German tanks were good, but their later heavy ones suffered from curtailed development.

The only way to ensure reliability and ease of maintenance is by the most rigorous proving and improving, not only of components during development and of pilot machines, but of early production batches in the hands of troops. The lesson is that, although this calls for much money and many conscientious engineers, the cost of the most lavish development running will be saved many times over.

SUMMARY

I am afraid I have had to cover a tremendous amount of ground in a short time, but I think we can summarize the major effects of the War on tank design as follows:—

- I. An enormous increase in the power of the main armament, directed towards greater armour penetration.
 - 2. Increased emphasis on the necessity of being able to fire H.E. shell.
- A great increase in armour thickness, but a net reduction in immunity against probable hostile weapons.
- 4. The virtual abandonment of rigid logistic restrictions on size and weight of the largest tanks. Weights of 70 tons were reached and 100 to 180 tons were contemplated.
- 5. Speeds and cross-country performance remained fairly constant, the demands of Tank Generals for higher speeds being counterbalanced by the preference of the troops for plenty of armour and a gun able to beat that of his enemy.
- 6. The engines and running gear were developed sufficiently to keep pace with the extra weight and were not limiting factors.
- 7. An improvement in life mileage and reliability, except with some very heavy machines which had not been fully developed in the time available.
- 8. An increase of design and engineering complexity, leading to a greatly increased burden of manufacture and maintenance.
 - 9. Great stress on being able to cross water by swimming or wading.

CONCLUSION

I propose to leave the expression of any opinions as to the next stages of development, or any special tactical lessons, to those who may take part in the discussion. I will only say that although the rate of development of the tank is probably slowing up, yet the enormous increase in power that took place during the War and which was much beyond what was considered possible or even desirable by many in 1939, shows the danger of assuming that finality has been reached.

Furthermore, in the last phase of the War, the influence of very heavy armour and guns was greatly discounted by the immense numerical superiority of the Allies in medium weight tanks; and the bombing of their factories, petrol installations and lines of communication greatly reduced the number of German heavy tanks that could take an effective part in the endeavour to stem our advances. In any future war the circumstances may not be the same.

To have brought the influence of the War right up to date, i.e. to its effect on present designing, would involve me in tricky questions of security. I can safely conclude however with what I am sure is the fundamental lesson to this Country, and unless we profit by this lesson the army will not get the tanks it wants, and when it wants them, however many bright ideas are put forward here or elsewhere.

The very high performance required of a tank requires an equally high grade of engineering and therefore a very large number of engineers, not only for the initial design but also to follow through with all the refinements of development which are necessary to secure the essentials of reliability, accessibility and ease of operation.

For aircraft development there are a number of firms whose whole existence depends on keeping in the forefront of aircraft design, and who consequently maintain large and able design teams. But there is not one firm in this Country whose financial stability depends on tanks, and only one that has been interested in tanks for many years, and even this firm's interest has fluctuated.

One often hears it said, "Why don't you get So and So to design you a tank, they make wonderful locomotives or motor cars or refrigerators." But Messrs. So and So's future depends on the success of their next model of locomotive, motor car or refrigerator and not on their tank; therefore it is always a side line to them.

With a new aircraft, you can be almost sure that a firm's best men will be used on a new prototype, and they will be men who have spent much of their life in aircraft engineering. With a new tank you have no such assurance, even in times of re-armament. In war, when it is rather late anyhow, most designers will be inexperienced about Fighting Vehicles.

Of course, there are the official design establishments, and it is they who keep industrial designers on the right lines, but their numbers are too small to deal with all the detail design, nor is it the policy for them to do so. They have much difficulty in obtaining sufficient men of the right calibre.

We need many more men who will make this art their life work in the same way as naval architects and aircraft designers. There are various places where naval and aircraft engineering are taught but, except for the Military College of Science and the School of Tank Technology, there is nowhere to study the principles and practice of tank design. Moreover, these two establishments cannot do much because they cater mainly, at present, for the basic technical education of Technical Staff Officers. Hence, for all practical purposes, there are no civilian engineers who have studied tanks from a broader aspect than their day-to-day duties. Furthermore, the Royal Armoured Corps produces far fewer officers for training as Technical Staff Officers than any other corps operating complex equipment.

Thus, I suggest to you that the basic lesson of the late war is that the way to ensure our future progress is to adopt broad-minded and long term policies to breed more tank architects, and to make provision for more systematic education in British and Foreign practice of official designers, industrial design teams and technical

staff officers. Only by this means can we ensure that the lessons of the last war are fully applied, that our peace-time products are fully thought out and developed, and that in times of stress we are not forced to dash off into a myriad of hastily conceived designs, compromises and adaptations.

This lecture was given and is published with the approval of the Ministry of Supply.

DISCUSSION

THE CHAIRMAN: We now have a "free for all." I do hope that anybody will get up and say anything he likes; and if somebody else in the audience can answer I hope he will; if not, then we will call upon the unfortunate Lecturer again. Would anybody like to begin?

LIEUT.-GENERAL SIR GIFFARD MARTEL: We have had an extraordinarily interesting and very delightful lecture to-day, and an immense amount of time and trouble has been put into it. At the same time I rather feel that the main influence of the last war on tanks was a little clouded by the mass of detail which was inevitable.

What was the main and outstanding influence of the last war? Undoubtedly it was—what a lot of us have been preaching for some time—that the use of large numbers of mobile tanks would enable the soldier to recover the tremendous power of mobility which had been lost in past generations. We have only to look at Hitler's successes in the early part of the War to see how he built up a very highly trained but small army, making full use of armour and mobility, and with this he defeated Poland in a fortnight and took France in a month. Then, as we know, he turned to Russia.

In the last part of the War I was on the battlefields, and I asked a Russian General to tell me what happened in 1941, when the Germans advanced against the Russians. He said, "The Germans advanced towards us with their Panzer divisions and motorized divisions working together in groups about fifty miles ahead of the rest of the Army. They were the equivalent of about twenty armoured divisions and were advancing against about two hundred Russian divisions. I was with a corps on the left. We did not have time to deploy with all our horse transport. We knew the Germans were sixty miles away and we put out an outpost line. About two hours later a couple of Panzer divisions crashed through and attacked us in flank or rear. The casualties were frightful and the awful part of it was that those two Panzer divisions moved about 30 miles to the left during the night and did the same thing to another corps the next day." It had a tremendous effect, he said, and it would be two generations before the Russians could clear out of their minds the terrible fear that they had experienced at that time.

One should have in mind clearly that we did not ourselves carry out this form of mobile warfare on that scale on the Western front, and we must learn from the way in which Germans did it. We had a little small-scale mobile warfare—a couple of armoured divisions at a time—but nothing approaching real mobile warfare of this nature, except at the end of the War when the Germans were already defeated. For that form of mobile warfare it is essential to have highly mobile tanks and considerable numbers of them.

One thing is certain—the Centurion tank, with its long administrative tail, could not possibly do mobile operations on that scale. Yet if we have to face enormous Russian forces it is no good going in for conscription and a manpower army to hold the Elbe or the Rhine against an army twice if not three times our size. That form of linear defence is fifteen years out of date for European warfare, and we must do the same as the Germans did with their mobile forces.

I can hear people saying, that is all very well, but it is you who are out of date. The Russians now have a large number of Stalin tanks. Therefore our tanks must have more armour and guns, like the Centurion, to compete with them. There I disagree entirely. If you talked to a light cavalryman in the past and said, "You cannot now carry out your role of sweeping up behind the enemy because he has heavy cavalry," he would

have laughed you to scorn and said, "You do not suppose I am going straight for them, do you? I am going to evade them and go round them." He would add that there were times when he would take the heavy cavalry by surprise and cause them heavy casualties. That is what happened in the past, and that is what we have forgotten.

I think it is perfectly clear that this dual purpose idea is no good. It is as absurd to try to have dual purpose tanks for the mobile and static roles as it would be to say that you will have one type of aeroplane as a bomber and a fighter. They are as different as that. The French agree; the Americans agree; and the Russians agree. Yet we are sticking to that policy. I have no doubt whatever that we must have two types. As regards positional warfare you have to have a heavy tank, and the Centurion, which is the best built tank in the World, is not far off what we want for the heavy work, except that it is not quite good enough because it is handicapped by being expected to play a mobile as well as a static role. I think it is most serious that no one has gone ahead on this in five years. The point has been stressed by those of us with great experience—General Fuller, General Lindsay, General Hobart, General Crocker and myself. We want a tank to play a mobile role and meet the greatest threat which exists to-day.

LORD BATHURST: As a most interested listener but a very worried taxpayer, I should like to ask the Lecturer if he could give a very rough estimate of the cost of a tank and in what way the cost has increased?

The Lecturer: I think that would call for a detailed financial analysis. I have often asked that question in the Ministry; but the price seems to depend on what the figures are required for! It varies very much. Apart from anything else the value of the pound has fallen, as you know, and to make the same tank to-day would cost at least twice as much as before the War. The cost goes up roughly with the weight, but if you double the weight you probably more than double the cost. The more specialized it becomes, the more the cost goes up. Again, there are very heavy castings and plates. It takes relatively more to make and machine a 10 ton casting than a 2 ton casting. The cost goes up rapidly with size and complexity. Then performances cost a great deal—a more highly developed engine is required. In the past we had bus engines at £150 each, whereas a Meteor costs something round £1,000, I suppose, so it is very difficult to give firm figures. I am afraid I cannot see any likelihood of reducing the cost except by making more—and that would again cost still more!

COLONEL H. R. STRANAGE: May I ask whether the Lecturer thinks the pattern we are adopting in the various types of tanks is as good technically as the American or Russian types?

THE LECTURER: I can quote an American article by Baldwin entitled "The Decline of American Armour," which says that the Centurion is better than any tank in America. It is an American military paper and that, I think, is the best indication I can give you.

THE CHAIRMAN: What about the Stalin type?

THE LECTURER: Officially, we have only seen a press photograph of one. It has a very large gun in front.

LIEUT.-GENERAL SIR GIFFARD MARTEL: I have driven one.

LORD BATHURST: I think we all know what a Centurion can do or what we think it can do, but can we hear what it is supposed to do? In other words, what is the British tank supposed to do in a third World War?

THE CHAIRMAN: I asked the Lecturer that question. He took it up and was told that, in spite of the fact that the Centurion is in service, we are not allowed to give out this information.

THE LECTURER: I was told that, although I should not quote precise figures, I could give a general idea. The Centurion is superior to the early Tigers and is almost up to the latest Tigers. In mobility it is definitely superior to all Tigers.

THE CHAIRMAN: Can you say anything about its mobility? What can it do on a fill of petrol? That is what is worrying us.

THE LECTURER: I do not think I can say much about that. All I can say is that the more armour you have, the bigger the engine and the more ammunition there is, the less room you have for petrol. I think we can say that the petrol question is a very serious headache.

THE CHAIRMAN: Is it possible to use fuel tanks during the approach which can be discarded afterwards. Does that not increase your circuit?

THE LECTURER: Yes, a jettison container can always be fitted outside which can be dropped off on arrival in the battle area. That is a very common arrangement with tanks and aircraft.

LIEUT.-GENERAL SIR GIFFARD MARTEL: Unpopular with the crew.

MAJOR-GENERAL R. H. BOWER: The lecturer mentioned air attack on tanks and said how difficult it was to provide any form of anti-aircraft weapons on the tank itself. But the Americans and the R.A.F.—and I have no doubt the Soviet Air Force—are spending a lot of time and trouble in improving the methods of attack on tanks from the air—better weapons, improved sights, and they have jet propelled aircraft, which are very much easier to get on the target. The only catch is the pull-out after the dive when actually making the attack which means, because of the speed, a pull-out at something like 3,000 feet. That is not a very great range and I believe that if by some means a .5 could be attached to every tank a squadron or regiment of tanks would have some degree of protection, possibly enough to reduce the accuracy of an air attack on the armoured formation or squadron. I believe that this is a lesson we could not learn from the end of the last war, because our armour was not seriously assailed, but I have no reason to doubt that very early in a next war we shall have this lesson brought home to us.

THE LECTURER: I have no specialized knowledge, but my general impression is that to perch the gun on top of the tank is not very effective owing to the extremely short time the tank crew has in which to operate. Even with a specially designed mounting there can be no question of a hundred per cent, hits, and when there is a very improvised mounting with the gunner in a most unnatural position, and more ammunition to be stowed in the tank, I am very sceptical whether it is worth while. It would be better to have a special anti-aircraft tank with the entirely specialized mounting which was designed at the end of the War. I think there must be a separate type for anti-aircraft work.

Colonel W. S. King: I would like to back up Brigadier Chapman. About two years ago considerable study was carried out as to what A.A. equipment can be put on top of the turret of a tank. With the present speed of aircraft and so forth, there is no hope of doing any damage unless you have a computing sight and all the rest of the gadgets. You may give yourself some moral courage by seeing some tracer going up in the air towards the aircraft, but beyond that you will not do much.

That leads me to a discussion on all the trappings we do put on tanks to do things other than fight tanks. In fact, sometimes we are almost like the White Knight. We have so many pots and pans round our horse that we fall off. If we would try to keep ourselves down to basic principles, we should do better when facing the enemy tank.

This brings me to the big question of an all-round traverse or a limited traverse. We must have the best gun and we can get it with limited traverse. If one can get more gun on limited traverse, for a given size of vehicle, it is the best asset when defending oneself.

No doubt when fighting the forward battle, as the Royal Armoured Corps do in attack, a gun is wanted with all-round traverse, to fight in every direction. But I do think we must try to keep ourselves simple, and refrain from cluttering up our tanks with anti-aircraft weapons and air-conditioning gear and anti-gas equipment and so forth. What is required is the best possible gun and some armour on a mobile chassis, and that is what we must aim at.

MAJOR A. W. COWGILL: I would like to support Colonel King's plea for the adoption of limited traverse in future heavy tank design. I am sure the Lecturer will agree that the benefits to be gained by this policy, not only by enabling a larger gun to be mounted and better armour distribution to be attained, but by considerably easing production problems, are very great. It is the one really new design factor which emerged from the late war.

The virtues of limited traverse were not apparent at the beginning of the War when only small tank guns, such as 6 pdr. and 75 mm. were contemplated. The tactical advantage of being able to make large switches without having to turn the tank outweighed the very small increase in armour which might be gained by giving up all round traverse.

When, however, tank guns of the calibre of 150 mm, or greater, weighing some tons, are considered, the saving in weight and production costs is very large, as the necessity of building a very heavy balanced turret is avoided. In fact, the heavier the gun, the greater

is the dividend obtained by the adoption of limited traverse.

THE CHAIRMAN: I think we ought to draw the discussion to a conclusion. The awful truth is that I am not mechanically minded in any way. I am the kind of man who takes his car to a garage to have his maintenance done. In spite of this, as someone who had to "use" tanks quite a lot in the last war, I have been extremely interested in this lecture. We always used to grouse about our tanks—probably quite wrongly; and I now realize all the technical difficulties which you were up against. The two big things that I always complained about were firstly, the mechanical unreliability of our tanks compared with those of the Americans, and secondly, our lack of gun power. It always seemed to me that we built a beautiful tank and then said, "What gun can we put in it?" I reckon this was the wrong approach. We ought to have said, "What gun do we want for this job?" and then built the tank round the gun. I have never seen anything so ridiculous in my life as the first Churchill that was produced with a little matchstick sticking out of the front, i.e. the 2-pounder.

LIEUT.-GENERAL SIR GIFFARD MARTEL: It was designed for the 6-pounder, but they

could not make it.

MAJOR-GENERAL SIR CAMPBELL CLARKE: It was not. It was designed for the 2-pounder.

THE CHAIRMAN: I am not going to enter the fray, but as I said, it is "free for all."

I think we now realize anyhow some of the difficulties we were up against.

I believe we have to make things simple and if we could have one design of tank it would make things much simpler for industry. You must remember also that there are many occasions when armoured divisions have to fight their own way out, and they must have the biggest and most powerful tanks to fight their way out before they can get their mobility. You want large and pretty tough tanks for that job.

I like very much the idea of the Jagd tank, and would like to see the most powerful tanks we can produce with a troop of Jagd tanks in each squadron, equipped with a heavier gun, to act as a long stop. That is an idea which appeals to me. I do not believe the light tank can fight sufficiently to be of great use. For the future I would like to see:—

(i) Designers concentrating on armoured protection against the "Piat" type of weapon; that was what worried the tank crews most towards the end of the War, and we must do our best to prevent tanks from being blown up by infantry weapons in close country.

(ii) Cross country mobility steadily improved; there is likely to be more and more cross country work. The atomic threat will necessitate more and more dis-

persion.

(iii) The best possible gun that we can produce.

I am not going to say more, but I would like—and I am sure on your behalf—to thank the Lecturer for the immense amount of trouble and study he has put into this extremely interesting lecture. (Applause)

Lieut.-General Sir Giffard Martel: I am sure you would wish me to thank the Chairman, who is an exceedingly busy man, for sparing the time to come here this afternoon to conduct our proceedings. Thank you very much. (Applause)

A SURVEY OF THE TRIALS OF WAR CRIMINALS

By Major-General D. A. L. Wade, C.B., O.B.E., M.C., B.A., A.M.I.E.E.

NDER the Moscow Declaration of October, 1943, the principal Allied Powers affirmed their intention to try war criminals. They divided them into two classes—major war criminals and minor war criminals.

Major war criminals were defined as those persons and organizations whose crimes had no particular geographical location. They were to be tried and, if found guilty, punished by joint decision of the Governments of the Allies. The International Military Tribunal at Nuremburg tried the Nazi leaders and a similar tribunal in Tokyo dealt with the Japanese leaders.

Minor war criminals were defined as those individuals accused of offences against the laws and usages of war (as set out in the Hague and Geneva Conventions), and whose offences could be ascribed to a particular location. The bulk of war criminals fell into this class. To date some 3,000 have been tried by the military courts of Australia, Belgium, Canada, Denmark, France, Great Britain, Holland, Italy, Norway, Poland, U.S.A. and U.S.S.R.

British courts have tried 1,783 individuals; of these 1,403 were convicted and sentenced to punishments varying between death and one day's imprisonment. The number executed was 372. The first British court assembled at Luneburg on 17th September, 1945, to try the Commandant and 43 members of the staffs of the notorious Belsen and Auschwitz Concentration Camps. The last British court passed sentence on ex-Field-Marshal von Manstein at Hamburg on 19th December, 1949. Trials by courts of others of the Allied Powers have not yet concluded.

Now that the heat and passion engendered by the conduct of our late enemies have had time to cool, and whilst the events are still fresh in the memory, it may be of interest to review in broad outline the results of our efforts to mete out justice to those whom we deemed to have infringed the accepted rules of war, and to reflect on their implications. Much publicity has been given both in the press and in Parliament to some of the trials—in particular to those involving senior officers; but of the majority of the trials little has been written or spoken.

Of the total number of Germans, Austrians and Italians convicted by British courts, some 20 per cent. were members of the armed forces proper; 80 per cent. were members of other Government services (e.g., Gestapo, S.S.¹ and S.D.) and civilians. In the case of the Japanese the proportion was about 85 per cent. military and 15 per cent. civilians.

Broadly speaking the charges fell into three main categories :-

- I. The murder and ill-treatment of civilian internees and civilian labour forcibly recruited for war work from the occupied Countries. The German concentration camp and labour camp cases formed the bulk of this category.
- 2. The murder and ill-treatment of civilians by way of reprisals—common to both Germans and Japanese.
- 3. The murder and ill-treatment of prisoners of war—common to both Germans and Japanese.

¹ Includes the Waffen S.S., i.e., those who were organized into military formations, and employed as such.

THE MURDER AND ILL-TREATMENT OF CIVILIANS

The German accused arraigned on these charges were almost invariably either Nazi government officials or members of the various police organizations, under the overall control of Himmler as head of the State Security Organization. The latter, under the broad heading of security, combined the normal and legitimate functions of their offices (e.g. contra-espionage) with the implementation of the Nazi policies of mass extermination of Jews; the maximum use of "slave labour" to further the war effort; and the "liquidation" of those "slaves" who were incapable through age, infirmity or sickness of performing the tasks allotted to them.

Contrary to popular rumour, there has been no evidence to show that men and women of these organizations were specially recruited from the criminal classes. On the contrary, the majority appear on their own evidence to have received a normal up-bringing and scholastic education, and their inhuman behaviour must be attributed to political indoctrination and lack of moral stamina. Only in the cases of a few of the lower ranks have there been signs of inherent abnormality.

Their defence generally relied on the plea that they were acting under the orders of their superiors; alternatively they pleaded duress, in that if they had disobeyed those orders they would have been liable to incur the same fate as their victims. The plea of "superior orders" would not appear to have been accepted by the courts as exonerating the accused from their crimes; though in the case of some of them, especially in the junior grades and ranks, it undoubtedly was taken into consideration in mitigation of sentence. The fact that our Manual of Military Law² was only amended in 1944 to clarify the validity or otherwise of a plea of "superior orders" was a point on which the defence continually laid emphasis.

THE MURDER AND ILL-TREATMENT OF CIVILIANS BY WAY OF REPRISALS

The bulk of the charges arising under this heading originated from the activities of the various resistance movements operating in the enemy-occupied Countries. The accused included some German and Japanese Generals and also officers of lower ranks down to captains and subalterns.

The most serious cases were those in which the indiscriminate and mass shooting of civilians, including women and children, occurred without any form of trial following upon incidents in which local inhabitants were suspected of harbouring members of a resistance movement, or where instances of shooting or sabotage had occurred in the neighbourhood.

The defence commonly rested on the argument that, under the conditions prevailing, i.e., guerilla warfare—in the occupied Countries, reprisals were justified as the only means of enforcing law and order, and of protecting the lives of troops in rear of the fighting zone.

The courts were advised by their Judge-Advocate-Generals that this plea was not valid in International Law. Our own Manual of Military Law³ states that reprisals between belligerents are retaliation for acts of illegitimate warfare for the purpose

² Chapter XIV, paragraph 443 (as amended April, 1944) states:—"The fact that a rule of warfare has been violated in pursuance of an order of the belligerent Government or of an individual belligerent commander does not deprive the act in question of its character as a war crime: neither does it, in principle, confer upon the perpetrator immunity from punishment by the injured belligerent..."

³ Chapter XIV, paragraphs 452-464.

of making the enemy comply in future with the recognized laws of war, and that they are an extreme measure because they inflict suffering upon innocent individuals, in which fact, of course, their coercive force exists.

The Manual lays down that every effort must be made to take and punish the actual offenders, and that only where this is impossible should other measures be taken; that, as a rule, a complaint should first be lodged in the hope of stopping any repetition, and that this course should always be pursued unless the safety of the troops requires immediate drastic action.

It further states that although collective punishment of the population is forbidden for the acts of individuals for which it cannot be regarded as collectively responsible, it may be necessary to resort to reprisals against a locality or community for some acts committed by its inhabitants or members who cannot be identified. As to the form of reprisals it states "What kinds of acts should be resorted to as reprisals is a matter for the consideration of the injured party. Acts done by way of reprisals must not, however, be excessive, and must not exceed the degree of violation committed by the enemy."

These statements are not without an element of ambiguity. The layman is left in some uncertainty as to whether or not in the last resort the shooting of civilians is legally justified. The weight of legal opinion, however, is heavily in favour of the view that the killing of hostages and reprisal prisoners is a violation of the rules and usages of war.

What then is the position of a commander who is faced with the situation where, in a village many miles removed from the battle zone, his troops are frequently fired upon under cover of darkness and he is unable to trace the culprits? Legally, he may, if the circumstances in his opinion justify it, arrest a number of the leading inhabitants and keep them in captivity as hostages to guarantee the future good behaviour of the inhabitants; or, alternatively, he may after due warning take reprisals in the form of fines, the seizure or destruction of property, or the arrest of persons—reprisal prisoners—suspected of sympathizing with the culprits. He may not, however, resort to the killing of hostages or reprisal prisoners.

The death penalty in fact is only justified where, after proper trial, a civilian is found guilty of illegitimate hostilities or other "war crimes." Herein lies the crux of the matter. In no cases where courts convicted, so far as the writer is aware, were the defence able to prove that a proper trial had preceded the executions.

THE KILLING AND ILL-TREATMENT OF PRISONERS OF WAR

These formed the largest group of charges against both Germans and Japanese.

d

Here International Law is quite specific. It lays down that prisoners of war shall be subject to the laws, regulations and orders in force in the armed forces of the detaining power; and that imprisonment is the most severe disciplinary punishment which may be inflicted.⁵

It may be, and indeed was argued that the Japanese were in the habit of meting out punishments of violence—ranging from beatings to beheadings—to their own troops. Nevertheless the Japanese Government subscribed to the Hague and Geneva

Manual of Military Law, Chapter XIV, paragraphs 441-451.

⁵ Manual of Military Law, Chapter XIV, paragraphs 94 and 101.

Conventions⁶ which laid down the rules concerning the treatment of prisoners of war, and the brutalities inflicted upon Allied prisoners were systematic and not isolated.

The Germans had no such excuse. In their Forces the standards of discipline and punishments were akin to our own. Indeed it may be said that the treatment of our men in prison camps by the German armed forces proper was on the whole correct. The responsibility for killing and ill-treatment usually rested in the hands of the Gestapo and S.D. and took place outside the camps.

In those cases where members of the armed forces proper were charged, they based their defence on the plea of "superior orders." The most notorious of these orders was the so-called Commando Order issued from Hitler's headquarters in December, 1942. It ordained that "all opponents brought to battle by German troops in so-called Commando operations, even soldiers in uniform, were to be exterminated to the last man." "Even if they surrender all quarter is to be denied to them." "Individual members of such Commandos working as agents, saboteurs, etc., are to be handed over to the S.D. immediately and not treated as prisoners of war." The order concluded by threatening with court-martial any Commander and officer who failed to carry out the order or who acted contrary to it.

It was submitted by the prosecution in these cases that even if an officer had assumed that the order was issued as a form of reprisal to combat acts of espionage, sabotage, etc., it should have been a matter of common knowledge that the order was *ipso facto* illegal, in that even spies and saboteurs are entitled to a trial, whilst troops captured in uniform are clearly entitled to be treated as prisoners of war.

This argument evidently bore full weight with the courts, who did not hesitate to inflict the death penalty except in those instances where the accused was proved to have recognized the illegality of the order and only carried it out after protest. In these latter cases lesser punishments were inflicted. Where high commanders deliberately obeyed and implemented the order it is difficult to see how the plea of "superior orders" could have found validity; the more so since some of them deliberately ignored it and "got away with it."

Many of the non-military persons charged under this heading were comparatively junior Gestapo and S.D. officials who actually carried out or arranged executions. They too incurred a number of death sentences. It may with some force be argued that they were only obeying orders and that it was not for them to enquire whether the executions were legal or not. The prosecution, however, emphasized that the manner of these executions (the victims were commonly taken out in uniform, made to strip and then shot in the back of the head on the edge of an open grave or ditch) could have left no doubt in their minds as to the illegality of the whole proceedings.

The reader must be left to judge for himself.

Conclusions

The foregoing is a brief survey of the nature and scope of the trials conducted by British military courts.

What of the moral issues involved?

Having decided to try war criminals, the Allies were faced with three alternatives. They could have left the selection and trial of war criminals to the vanquished nations

⁶ The Japanese Government signed and ratified the 1907 Hague Convention; it signed but never ratified the 1929 Geneva Convention.

themselves. This was done after the First World War and resulted in the Leipzig trials. They could have confined the trials to the leading members of the Nazi régime and the Japanese military hierarchy. This would have meant in effect that the trials would have been confined to the "major" war criminals subsequently arraigned before the International Military Tribunals at Nuremburg and Tokyo. They could have pursued the policy, which in the outcome they did pursue, of trying both "major" and "minor" war criminals.

To have adopted the first alternative would have been to invite a repetition of the Leipzig farce. This could hardly have been justified on any grounds. The real point at issue, therefore, was whether justice should be confined to the leaders alone or extended down the chain of responsibility to those in subordinate positions. There are many arguments to support both views. On the one hand it may be said that subordinates must obey orders; that failure to do so in war may weaken the whole structure of the State and its services, and lead to fatality.

It may be argued that in war, all means are justified to obtain the end, of victory; that the use of the atomic bomb was a criminal act as much as mass reprisals against civilians, and there are those who assert that the air arm and total war have rendered the Hague and Geneva Conventions obsolete, and thereby nullified the hitherto accepted laws and usages of war contained in them. On the other hand it is maintained that those laws and usages having been accepted by the nations of the World, non-enforcement of them would have been a serious retrograde step and an affront to civilization; that International Law to be effective must not only apply to States but also reach out to cover the individual members of a State.

Furthermore there is the straightforward common-sense argument that the individual must be held responsible for his own behaviour and, if he oversteps the accepted standards of common decency and humanity, he must be prepared to take the consequences.

Finally as a nation we have no need to defend our policy of trying war criminals irrespective of rank or status. For both during and since the War we have meticulously court-martialled our own subjects accused of war crimes—notably the ill-treatment of German prisoners of war; and moreover, English law has never recognized the plea of "superior orders" as exoneration from breaches of the law. The writer's conclusion, therefore, is that the trials were inescapable and the proceedings just and fair.

It is as yet too early to judge the effectiveness of these trials in enforcing a greater respect for the accepted laws and usages of war in the future. But the crucial test is close upon us. From all published accounts acts of war criminality have been committed in Korea. Will the United Nations take effective steps to investigate these allegations and where necessary bring the perpetrators to trial? Or will they baulk the issue? Their responsibility is a grave one.

⁷ By the time the German tribunal sat at Leipzig in May, 1921, the number of accused had dwindled to twelve. Of these six were convicted—two men sentenced for homicide were given four years imprisonment, and allowed "to escape" from prison before they had completed six months—one man convicted for "refusal of quarter" was sentenced to two years and treated by the German people as a hero.

⁸ It is of interest to note that the German tribunal at Leipzig held that the plea of "superior orders" was no defence in the "Llandovery Castle" case.

OBEDIENCE TO LAWFUL COMMANDS

GREAT deal of public interest has been aroused by and since the recent debate in the House of Lords on the "Peleus" trial, on the subject of the conflict between the duty which a disciplined officer or man owes to his superior authorities, and his general duty to refrain from committing criminal acts. This public interest has not always been very well informed or entirely free from prejudice; furthermore, feelings of sympathy with particular persons have been allowed in various quarters to cloud the judgment of some who should have been able

to form a balanced opinion.

The subject is admittedly complicated, but there are certain simple principles which ought to be clear enough. The first of these concerns the nature of the obedience which a disciplined officer or man owes to his superiors. The penalties for insubordination are, according to the Naval Discipline Act for example, incurred by " every person subject to this Act who shall wilfully disobey any lawful command of his superior officer," etc. It is, or ought to be, a commonplace that only lawful commands have this legal binding force. Secondly, as a matter of discipline, obedience is regularly required in the case of all orders not obviously unlawful. But, since only lawful commands are binding, it will be of no avail to a disciplined officer or man who is charged with having committed a crime, to plead that he did so in obedience to an order received from his military superior, for no such order could be a lawful command or (consequently) bind him to obedience.

This, as the Lord Chancellor said in the debate about the "Peleus" trial (25th April, 1950), has been the state of the law within living memory, and long before that. Much has been said and written about the fact that Article 443 of Chapter XIV of The Manual of Military Law was amended in 1944. This Article had previously emphasized the obligation of the serving officer or man to obey orders. In 1944, it was altered to make clearer that the obligation referred only to lawful commands. The amendment was one of emphasis, not purporting to reflect a change in the law but bringing the statement of the law more closely into line with the consensus of worldwide legal opinion. In any case, however, this manual is not a legislative instrument and has itself no formal binding power. The current version of the Article in the Manual of Military Law ends with the following sentence :- " The question, however, is governed by the major principle that members of the armed forces are bound to obey lawful orders only, and that they cannot therefore escape liability if, in obedience to a command, they commit acts which both violate unchallenged rules of warfare and outrage the general sentiment of humanity.

In the particular case of the "Peleus," the Captain of a German submarine together with some of his officers and men were accused of a war crime, because they deliberately fired at the wreckage and survivors from a Greek steamer which the submarine had torpedoed and sunk. The Captain was expected to plead that he had acted in pursuance of orders from his superior authorities, but he did not. He took full personal responsibility for the act, which he sought to justify on the ground of operational necessity. It may be possible to feel, in varying degrees, some kind of sympathy with a U-boat commander who is anxious to remove the evidence of his presence in a particular part of the ocean. Some have even doubted whether the actions of this particular officer "both violated unchallenged rules of warfare and outraged the general sentiment of humanity." The court was in no doubt, and their verdict of "guilty" has commended itself to the sense of justice of most of those who

have studied the case.

The other accused pleaded in defence (inter alia) that they had acted in obedience to the orders of the Captain. This led to much discussion in court about the question whether such a defence could be allowed, and the amendment to the Manual of Military Law was criticized by the Defence. It is, however, on record that Counsel for the Defence, when asked by the Judge Advocate whether he challenged the accuracy of the statement that "the question was governed by the major principle that members of the armed forces are bound to obey lawful orders only," stated that he was not prepared to challenge the point. Indeed, the Militarstrafgesetzbuch-the German document corresponding to our Manual of Military Law-says, on this subject: "If a penal law is violated by the execution of an order in the course of duty, the commanding superior is alone responsible for it. The obeying subordinate meets punishment for participating, however, if it was known to him that the order referred to an action which involved a criminal purpose." It is worthy of some remark, in this connection, that the further plea was advanced that the subordinates did not know that their Captain's order in this particular instance was unlawful. One of the accused was a Medical Officer, fully aware that under the Geneva Convention he was prohibited from bearing arms at all, let alone using them to shoot at survivors. Another of the accused, the Engineer Officer, gave evidence that he had himself protested to the Captain against the order given. From these and other facts elucidated in the course of the hearing, it became clear beyond doubt that this plea of ignorance could not stand. The special interest of this point is that, in this classic case dealing with the doctrine of "superior orders," we find that the crime was not the infringement of some abstruse legal technicality, but an act plainly repugnant to the conscience of ordinary serving men. There is no parallel here with the case of an airman sent out on a strategic bombing mission: the civilians who may be killed by his bombs are, from the point of view of International Law and war crimes, in the same category as, for example, the hospital ship which, when in company with the Fleet, must take its chance of being hit. Neither is there any true parallel with the case of sinking merchant ships without warning, which a law-abiding government may, in the stress of war, formally authorize as a measure of justified reprisal against an enemy unquestionably guilty of similar or worse violations of the laws of war; for the doctrine of reprisals is relatively clear and in any case could not possibly be invoked to justify the deliberate killing of shipwrecked survivors as in the case of the "Peleus."

To sum up, the Captain of this German submarine was executed because he deliberately caused a crime to be committed; the other accused were punished for their share in the crime in the degree in which personal responsibility for it lay upon them, and their own Counsel did not challenge the essential basis of that personal responsibility.

Criticism of the verdict against the Captain can only be based on the theory that, because war is ruthless, any form of barbarity may be justified in war. This is not compatible with civilization as it is understood by the free nations. Criticism of the verdicts against the rest of the accused may be based upon a misunderstanding of the nature of Service discipline; such a misunderstanding is perhaps least of all likely to arise in the British Armed Forces with its traditions of self-respect and initiative.

Suggestions have been made from time to time that the morale of the armed forces may be endangered if serving personnel cannot escape the fear that they may be tried as war criminals for obeying orders of their superior officers. This is surely mischievous. Serving officers and men can be expected to feel enough confidence in

the soundness of their Service and of their Country's institutions to entertain a reasonable belief that they will not in practice be ordered to commit acts "which both violate unchallenged rules of warfare and outrage the general sentiment of humanity." Furthermore, their day-to-day experience of the actual working of Service discipline will enable them to distinguish between the mechanical responses of the robot-like caricature of the fighting man which used to be associated with Prussianism, and the intelligent, willing obedience to lawful commands which is enjoined upon the officers and men of the British Armed Forces.

coughly charted. Even to-thy, throughp, cast tracks of county remain in Astronomia shift require group a plantion.

In this, the highest, the coldest and used recording in the Work, he the algorithm of many questions of acceptabilities of the coupling of the coupling relations about the real formatted were of the Author spaces higher algorithm to conditions there are seen to conditions there are seen to condition the conditions are seen as a seen of the park of the condition in the condition and farther North. It is tomoghe that an acceptant in other control of the condition in the change, nor we at connect the classical section of what he this condition is a statistical condition.

no laim must to alow there down or interrupt in a first a committee to one laim must to alow there down or interrupt in a first a committee to the character over in the short formous can on December and March above the short formous can be interrupted. It where on where presentation may see the interrupted. It was to inquire the can only be made by weach built out the part and, as more arranged to the Western Sand Loss of can be incorrupted as there are not the contract of the contract of the can be incorrupted and desired of the fourthern or or every willy a layer of the contract while "landgrance" and interrupt of the fourthern or or every willy a layer of the

- inplorence

THE ROYAL AIR FORCE PART IN THE ANTARCTIC EXPEDITION TO QUEEN MAUD LAND

By SQUADRON LEADER B. WALFORD, R.A.F.

HE Continent of Antarctica is almost the same size as the United States and Europe put together, and only a very small portion of its six million square miles has ever been surveyed. The history of its early exploration by Scott, Shackleton, Amunsden and others is well-known: but these early heroic enterprises were concerned mainly with the conquest of the Pole; thus it was perhaps inevitable that the areas which provided the most convenient approach to the Pole should be the first to be explored, and are therefore those about which most is known to-day. This applies to the Ross Sea sector. On the other side of the Continent the peninsula of Graham Land juts out beyond the Antarctic Circle towards Cape Horn and has now been extensively surveyed, largely by the Falkland Islands Dependencies Survey who have used Auster aircraft for the purpose for several years. The only other information about the inland areas of the Continent is based on reports brought back by a very limited number of aircraft flights; but the entire coast line has now been roughly charted. Even to-day, therefore, vast tracks of country remain in Antarctica which still require geographical exploration.

In this, the highest, the coldest and most remote land in the World, lie the answers to many questions of geographical and scientific concern. For example, observations over the last hundred years of the Arctic regions have shown that conditions there are getting warmer. The pack-ice is receding and vegetation is growing farther and farther North. It is thought that an increase in solar activity is responsible for this change; but what interest the glaciologists is whether this warming-up process covers the whole World, and the logical place to pursue the investigations is in the Antarctic. This is the theme which inspired the planning of this expedition. Thus glaciology—the study of the movement and behaviour of ice—leads the scientific programme of work which includes geology, survey, physics and meteorology.

Nature does much to deter the visitor to the Antarctic, surrounding it with many natural obstacles. First the World's most tempestuous ocean must be crossed; next there stretches the unpredictable barrier of pack-ice; and then there remains the insecurity of the continental ice and the sudden and violent gales. The bad weather in the southern ocean-the "roaring forties" and "furious fifties"-is due largely to the rapid circulation of a series of depressions around the Continent, with no land mass to slow them down or interrupt them. Pack-ice surrounds the shores of the Antarctic even in the short Summer season of December to March, and its behaviour is so erratic and knowledge of it so incomplete, that it is impossible to forecast when or where penetration may best be attempted. Passage through it can only be made by vessels built for the purpose and, in some areas, notably the Weddel Sea which adjoins Queen Maud Land, it can be dangerous, as ships caught in the pack can be crushed and destroyed by the pressure. This was the fate of Shackleton's ship "Endurance" and others. The Continent is covered with a layer of ice of very great thickness which spreads out and over the land beneath it to form a floating apron on the sea, called the shelf-ice, which is characteristic of Queen Maud Land. Its insecurity lies in the fact that portions of it are liable to break off and form icebergs, which may be as much as a hundred square miles in area.

PLANNING AND AIRCRAFT PROBLEMS

It was intended that a party of some fifteen scientists drawn in equal numbers from the three participating Countries—Britain, Norway and Sweden—should be deposited in Queen Maud Land, the Norwegian sector of the Antarctic, where they would remain for two and a half years. The vessel which would carry them there would return to Europe at the end of the first season, and sail South again the following year. No landing had ever been made in this rather inaccessible sector of the Antarctic, but in 1939 the Germans, with flying boats, had obtained a large number of photographs of the central portion, revealing interesting and extensive mountain peaks about a hundred miles inland.

It was appreciated early in the planning stages that aircraft would be invaluable, if not essential, in the search for a suitable landing place. The expedition received offers from many different quarters for this purpose, but Royal Air Force participation was secured as a result of the great interest in this project by the Chief of the Air Staff, who is Vice-President of the Royal Geographical Society. Thus an opportunity was found not only to assist an international scientific project in the far South, but for the Service to add to its knowledge of work in polar conditions and to visit the Antarctic for the first time.

The R.A.F. Antarctic Flight was formed in the Spring of 1949, and we set about the first stage of our adventures—the planning.

Originally it had been desired to carry a helicopter for this reconnaissance work, but on closer examination it had to be rejected on the grounds of impracticability. Casting about for a suitable alternative, Austers appeared to satisfy all the requirements, and the Expedition Committee agreed with our recommendations for their use.

The problem at this stage resolved itself into the following:-

- I. How to get two aircraft, a spare one being essential, on to the deck of a small 600 ton sealing vessel already loaded with expedition material.
- 2. How to protect these aircraft from the effects of 8,000 miles of varying weather, and yet be able to operate them from the ship at short notice when required, either as ski planes or float planes.
 - 3. How to ensure that they would work reliably in low temperatures.
- 4. How to avoid getting lost when flying over the featureless pack and shelf-ice.

There had been many excursions to the Antarctic employing aircraft before, but they were normally of two classes. First, those that were concerned with a reconnaissance of the coast, using sea-planes from convenient vessels and, second, those Expeditions which carried their crated aircraft through to their destination on the Continent, there to be erected and flown. Our fundamental difficulties were, therefore, the fact that the small ship was carrying everything needed by fifteen scientists for two and a half years, and could devote little space and facilities for aircraft; and that air reconnaissance would be expected from us at any time after the first pack was encountered, and to be maintained throughout the search for and establishment of the base on the Continent itself.

The solution to these problems of stowage and handling was due in large measure to the ingenuity of Auster Aircraft Ltd., who produced an admirable crate designed to house the aircraft in a partially-assembled state, together with all the spares and

accessories in specially-constructed cupboards. This box acted as a flight office, hangar, workshop, rum store and refuge on the voyage South, and is now continuing its useful work as a garage and workshop at the Expedition Base. We had obtained ski equipment from both Northwest Industries in Canada and from Austers, and at the last moment a float assembly was designed and constructed by the firm in time to reach us before departure. Flight Lieutenant Tudor and myself had not had a previous opportunity of aquainting ourselves with the technique of ski-planing or float-planing and looked forward to the experience with moderate confidence.

To quote Captain Scott, "The worst part of an Expedition is over when the ship sails," and I think that was true in our case.

THE VOYAGE SOUTH

The Expedition ship "Norsel," a Norwegian sealer, arrived in London in the middle of November 1949, and seemed to have no space whatever left to take on board the two huge crates which lurked like two "prefabs" on the quayside nearby. But somehow or other things were sorted out, and we found that the large crate, stowed athwartships on the after-deck, fitted with inches to spare into the space assigned to it, with the smaller crate nearby.

I felt rather like a traveller who has at last had the satisfaction of seeing all his luggage aboard. The twenty-eight days' passage to Cape Town passed uneventfully but the sea-water was finding its way into the small crate and doing a certain amount of damage to the aircraft parts which were secured to the floor.

In Cape Town we realized that we would have to reduce the space we occupied on board, and also have to arrange one aircraft in a manner which would enable it to be flown either from the water or the ice at short notice. This meant having to build one up and expose it to some of the worst weather in the World. We worked hard on the quayside in Cape Town erecting the aircraft and hoisting it on board to rest on top of the large crate containing the partially-assembled aircraft. With its undercarriage removed it was screwed down and lashed athwartships, protected somewhat by the boat deck and, in spite of the rather pessimistic opinions of the Royal Navy in Cape Town, we reckoned we had a reasonable chance of getting it through safely.

Two days after leaving Cape Town the "roaring forties" greeted us with gales and heavy seas. The after-deck which carried the aircraft crate was permanently awash in feet of swirling water which rushed across this deck as the ship rolled. Its exit through the scuppers was obstructed by a number of oil barrels, with the result that compression was set up and the floor of the crate began to give way to this surging tide. Our first battle had begun. Being thrown from side to side we worked as best we could inside the crate to repair the damage and reinforce the structure by means of pit props. The salt water, too, was being liberally splashed around both aircraft. For a time the ship proceeded at slow speed, head on to the sea, and gradually the weather improved.

We now heard that our ship would have to divert to meet the Whale Factory ship, thus adding another fourteen days of passage through the "furious fifties." The careful packing and stowage paid good dividends, and by the time we finally reached the ice a fortnight later no great further damage had been suffered.

Until this time we had anticipated being able to operate a ski-plane from the pack-ice for our first reconnaissances, and soon after meeting the more stable conditions of the ice we turned the aircraft round into the fore and aft position, tipping it up on

one wing to clear the funnel. Then raising it up on derricks we secured the Canadian ski-wheel combination and installed the radio.

The ice this year was difficult. Our first attempts to make headway to the South were frustrated, and it was not long before we were held up, surrounded by tightly-compacted floes, unable to move in either direction. The surface of these floes was so rough and heavily hummocked that it was at once apparent that ski-plane operations were out of the question. We remained in this unhappy position for about a week, killing time as best we could. Seal hunting, ski-ing and football kept our minds from the uncertainties of the future.

Time was advancing rapidly and if we were to set up the base during the season we would have to work very fast, and air reconnaissance to get through the pack-ice belt became more and more important. It was resolved therefore to try and break through once more into the open sea, there to fly off the float-plane in the search for another route South. Moving slowly out of the ice again we carried the float assembly down from where it had been stowed on the roof of the wheel house and placed it alongside the aircraft on top of the crate. Here it was wished we had received the detailed instructions on assembly and operation before we left Cape Town, but thanks to the general simplicity of the design we put everything together in a few hours.

The "Norsel" is a vessel built for navigation in the ice but is not an "ice-breaker." With her specially reinforced hull, rounded stem, and two ex-U-boat Diesels developing 1,400 h.p., she could force her way through pack-ice of remarkable thickness. "Leads" were often too narrow and tortuous to follow in themselves, but they provided space into which the obstructing floe could be pushed. If this barging process was unsuitable, "Norsel" would proceed full ahead and ride up on to the edge of a floe in attempt to crack and part it with her weight alone. The ship's navigation was complicated by frequent changes of course, varying speeds, days of no sun or horizon and the dislocation of the gyro-compass by the jarring of the ship when working the ice.

On the appearance of the first suitable stretch of open water, I was lowered over the side in VX 127 with quite unexpected facility and was shortly being rowed away from the ship. Once cast off from the pulling boat I primed the engine and fired the starter cartridge. Immediately the engine started I found myself motoring along at about 10 knots and, after five minutes warming up, decided that the experiment with the Auster floatplane could no longer be postponed. Opening the throttle I surged forward with a gathering cloud of spray, and after a series of uncertain movements with the control column found myself airborne in under a minute. I was both surprised and delighted to find that the aircraft behaved in every way as it should, and with great confidence I set off on the first reconnaissance. On my return alighting was also very straightforward, and the aircraft hoisted inboard once more showed no signs of damage or strain.

As pilots we were most impressed with the effectiveness of the pack-ice as camouflage for a small ship. The whole mosaic pattern is constantly changing, and unless there are large recognizable bergs amongst it there is nothing upon which the pilot can orientate himself. The aircraft was fitted with a small Marconi radio compass for navigation and with V.H.F. for two-way voice communication. Both functioned well. Our, technique for navigation and control was suitably pre-arranged. The pilot transmitted a regular flow of information covering instrument readings, relative bearing, compass heading, height airspeed, etc., to the controller on the bridge. This traffic was recorded on a private ribbon recording machine installed in the chart room,

where two assistants were also plotting all the navigational data. Thus, in the event of radio compass failure, a dead reckoning course to base could be passed to the pilot, and it was possible to hand to the pilot on return a track map of his flight with ice observations plotted on it. In this manner we were able to ensure that each aircraft sortie produced full and reliable information.

ARRIVAL AND WORK IN THE ANTARCTIC

In the days that followed regular reconnaissances were made in varying conditions of ice and weather. Not always when there was a pressing need for a flight were we able to find good stretches of open water, and on more than one occasion both pilot and spectators wondered how long it would be before that submerged lump of ice finally penetrated the floats. However, all was well, as on 10th February, after many delays and disappointments with the failure to discover a suitable landing place on the shelf ice, Tudor flew off in miserable conditions of low cloud and snow showers to report very soon a possible ice quayside. Later in improved weather conditions he carried the leader of the Expedition as a passenger for a closer examination. It was pronounced fit, the ship was eventually made fast alongside and unloading began.

We had now to transpose VX 127 from float-plane to ski-plane and to build up VX 126 from its partially assembled state in the crate. A mild blizzard prevailed during the two days we used for this work. In off-loading VX 126 we were glad that the crate was made up in sections for, after the rather wearyisome unscrewing of all the nuts and bolts, we were able to lift ashore first the top and then the sides of one complete half. The derrick then lifted VX 126 forward and up, when we turned her round in mid-air and placed her on the ice. The completion of the assembly of this aircraft was hampered by the unpleasant weather conditions. The main components were quite straightforward, but it is not until an aircraft is put together in a polar climate that one curses the invention of and necessity for split-pins, locking-wire and all the other oddments that go to make the finished article. The n.c.o's, their hands greased, worked for astonishingly long periods without complaint and without the need to seek shelter and warmth. Thus, by the time the weather cleared, we had two serviceable Auster VI ski-planes parked on the ice 'tarmac' and ready for operations.

During the next week, while the base was being built, we flew some forty hours sketching and photographing the coast and crevasses, and sighting 160 miles away the nearest and only outcrop of mountain peaks. Each member of the wintering party was taken for a flight round the area, so that they could have some idea of the barren wilderness of ice that would enfold them for the next two and a half years.

The aircraft remained serviceable all this time, in spite of the inevitably rough treatment they had from the hard ripples or 'sastrugi' in the ice surface. Our landing strip lay about 500 yards to the South of the ship, and to reach it we had to taxi up a slope of about one in ten. Without brakes the descent was somewhat hazardous and it was essential to have someone on the wing struts. The ski-plane would become airborne with full load in about 300 yards with a wind of force 4, but with no wind at all the run was very much prolonged. Flying over this shelf ice was quite simple when there was little cloud, but in overcast conditions the cloud merged with the horizon into an indefinite greyness and depth perception was difficult.

On flights over the sea we began to notice new ice forming—a danger signal that temperatures were getting much lower and that it was time we left. We had done all we could to assist the wintering party build their home and we had discharged the

THE ROYAL AIR FORCE PART IN THE ANTARCTIC EXPEDITION TO QUEEN MAUD LAND 79

duties set for the aircraft. We constructed a wooden cradle to take one fully assembled aircraft on the afterdeck, and the fuselage of the other was secured on the fore-deck with the wings in the hold.

THE RETURN VOYAGE

On 22nd February, we set course for South Africa, and two days later became imprisoned in the new ice. The outlook was serious. We hoped for a gale to help break up this ice, but none came, and as we waited locked in this unhappy position we soon came to realize that nature was not going to help us and that we must free ourselves by our own efforts, if we were to avoid being trapped for the Winter with only fourteen days, food left. Again conditions were not favourable for ski-plane operations, and even if they had been and we had discovered where the open water lay, it still remained for the ship to reach it.

Using fifty kilos of dynamite to break up the ice-floes round the ship we managed to struggle forward sufficiently to reach looser ice and thence the open sea. A full gale awaited us there and the prostration of seasickness again overcame many of us; but with only three degrees of starboard rudder to help us North, we slowly but safely made our way into Table Bay once more.

I think we were able to prove once again the dictum that only the best equipment is just good enough for the far South. Not only must it be of the first quality but it must be suitable; it must stand being treated roughly on the voyage; it must not take up too much space and it must be simple and reliable.

CONCLUSIONS

Finally, I would like to offer here some observations, from the scientific point of view, on the use of light aircraft in polar research, when they form but one item in the range of expedition equipment, and are not themselves the primary equipment. The aircraft is still a comparatively modern invention, and their employment on polar expeditions has not always given complete satisfaction in scientific circles. I feel this may be due in part to an imperfect understanding of just what they are and are not capable of.

All aircraft and especially light aircraft have certain important characteristics. They are fragile and need adequate protection on board ship and on ice; they cannot perform efficiently, and often not at all, in bad polar weather; they occupy rather a lot of space on an expedition ship; they require reliable radio, both airborne and on the ground; and, finally, they are expensive.

I suggest, however, that suitable aircraft can be used for the following practical and economical purposes in Polar regions:—

- 1. Penetration of pack-ice—by increasing the range of the Captain's vision.
- 2. Local visual reconnaissance—a useful preliminary to sledge travel.
- 3. Local photographic reconnaissance, e.g., oblique pictures with a handheld camera of features of interest.
- 4. Search and rescue work—more economical in time and manpower than the use of ground parties.
 - 5. Air reinforcement of sledge parties-for passengers and small loads only.

80 THE ROYAL AIR FORCE PART IN THE ANTARCTIC EXPEDITION TO QUEEN MAUD LAND

I would suggest that the following uses are normally both impracticable and uneconomical:—

- I. Exploration.—By this I mean the proper examination and fixing of features in space as opposed to aerial sight-seeing.
- Air supply and reinforcement.—No reliance should be placed on light aircraft for loads of anything much larger than for a two-or three-man sledge team.
- Survey and Mapping.—The ground control and precision flight necessary for accurate survey photography rules the light aircraft out.

I am certain, however, that in spite of their limitations, light aeroplanes can more than earn their keep as a normal item of expedition equipment; not so much perhaps for the scientific results that they themselves will bring, as for the valuable assistance they can give to the scientists from whom such results should properly come.

This talk was given in the Institution on 15th November, by Squadron Leader B. Walford, R.A.F., leader of the R.A.F. unit which accompanied this Scientific Expedition to the Antarctic in 1949–50. The talk was illustrated by a number of slides, and was followed by a coloured film.

THE WAR IN THE PACIFIC, 1943-44

GUADALCANAL TO LEYTE GULF

By LIEUT.-COLONEL H. E. FOOKS, O.B.E.

PART II

THE CAMPAIGN IN NEW GUINEA

In the Spring of 1944, General MacArthur's isolation tactics were greatly helped by the capture of two islands. These were Green Island, whose airfield controlled the passage between Bougainville and New Ireland, and Emirau which controlled Ysabel Channel between New Ireland and the Admiralty Islands. Both sides of the Vitiaz Straits were already in Allied hands. Japanese troops still occupied New Ireland and New Britain, but the two chief harbours in these islands, Kavieng and Rabaul, had been so damaged by Allied air raids as to be almost derelict. Those enemy forces on Bougainville and Papua were in an even more unpleasant situation, they were isolated and, as time went on, would "rot on the vine."

General MacArthur, whose one wish was for a quick return to the Philippines, decided that as he could now count superiority over the enemy in all three elements, air, land and sea, he could hasten the pace of his advance to the West. In order to do this he would move his army, a force of 80,000 men, 400 miles West in one jump along the North coast of New Guinea. His objective was the airfields and harbour of Hollandia, a small town near the border between Dutch and British New Guinea. This move, besides isolating several thousand more Japanese, would give his airforce three good airfields, which were at present out of range of his fighters, and would allow his bombers, which at present were based on Lae, to widen their circle of operations as Lae was too far back. It would also bring him 400 miles nearer the Philippines and Japan.

The enemy garrisons which would be isolated were 16,000 at Madang, 35,000 at Hansa Bay and 10,000 between Aitape and Wewak. Before he could clear New Guinea, MacArthur would have to take Wakde where there were 4,000 enemy troops, Vogelskopf area which contained at least 15,000 men, and two islands in Geelvink Bay, called Biak and Noemfoor. Biak had a first-class aerodrome, which was defended by a strong Japanese division. Noemfoor also had an airfiield, but was not strongly garrisoned.

Japanese Intelligence knew that the Allies were going to move, but where? They could only guess, and they guessed Hansa Bay or Wewak. Both of these places had their fortifications strengthened and their garrisons were heavily reinforced. The VIth Japanese Air Division stationed in the South of the Philippines, was ordered to Hollandia Airfield to support its defence.

On 1st April, Allied air forces raided both Hansa Bay and Wewak, thus confirming the enemy's guess that Wewak was their objective. Two days later Allied landbased bombers assisted by Vice-Admiral Mitscher's carrier-borne aircraft raided Hollandia airfields. The enemy were taken by surprise and lost 200 of the newly arrived fighters and bombers. The VIth Japanese Air Division was now crippled.

MacArthur asked Admiral Nimitz for his co-operation in the move, and Nimitz agreed to give all the help he could. He promised that Admiral Mitscher's Carrier Force would provide air cover, that a strong force of cruisers and destroyers would

¹ See map facing p. 92.

act as escort, and that 200 transports would be provided to carry the troops. Admiral Barbey, the commander of MacArthur's amphibious force, had no light task. He had to move 78,000 men, 3,000 vehicles and 5,000 tons of military equipment and stores.

The force landed at three points, 120 miles apart in all. These were Aitape, Humboldt Bay and Tanah-Merah. The main objective was the three airfields at Lake Santani, a few miles inland from Humboldt Bay. The Japanese had been so harried by the Allied air forces, their own having been smashed, that they put up a very slight resistance and then fled into the hills, leaving their artillery, ammunition and fuel dumps to fall into Allied hands. A few bombers tried to attack the landings but, with one exception, they were not successful. One aircraft bombing by night, was lucky enough to score a hit on a dump on the beach before this had been properly cleared. After the explosion, it was found that the equivalent of eleven landing ship loads of food and hospital stores had been destroyed.

Undoubtedly Japanese morale was cracking. This was due partly to the incessant bombing and also to the fact that they were on short rations, their supplies often being sunk by Allied submarines on the way over.

Admiral Barbey was able to claim that 78,000 men had been landed without a casualty. His own description of the operations was: "The amphibious ships ran up on the beaches and opened their front doors." As a result of the operations some 50,000 Japanese troops along the coast of New Guinea to the eastward were added to the large number already isolated.

TRUK

The invasion of the Marianas was being planned, and Vice-Admiral Mitscher's Carrier Force had orders to return to Majuro in the Marshall Islands, for overhaul and rest in preparation for this operation. The carriers still had 750 tons of bombs unexpended, and as Mitscher had no intention of carrying them the whole way to Majuro, he decided to drop them on a target on the way. Truk was not far off his course, and as it had already received one hammering by the same carriers, he decided to repeat the dose. His orders were short and to the point: "Level all shore installations and destroy all aircraft based on Truk."

At dawn on 29th April, Truk radar station reported that strange aircraft were approaching. A Japanese air patrol was at once sent out to reconnoitre and, as it failed to return the fortress commander ordered the "alarm." Of the 111 aircraft which he had at his disposal, half were airborne when Mitscher's planes came over. Since the first raid on Truk when the enemy had been caught napping, they had learned their lesson. Their anti-aircraft gunners had had constant practice and were now expert at their job. All the stores and fuel dumps, in fact anything that was movable had been moved into caves which had been dug in the hill side. Truk is not a flat island and its hill, which is covered with trees, rises a considerable height above the sea.

The Allied aircraft got a hot reception when they arrived, but a hundred odd planes were no match for the hundreds which rose from the carrier's decks. All buildings on the island, the docks and anything which had not been put into caves was systematically destroyed. In the harbour one submarine and a few small ships—all that were there, were sunk. Of the III aircraft which went into battle, only eleven came out. The Allied losses were twenty planes shot down by gun fire

and seven lost in aerial combat; 28 men of the crews shot down were picked up by submarines which had been told off for rescue work.

As a base Truk was of no further use to Japan and, his task completed, Mitscher continued his journey to Majuro.

WAKDE

Hollandia airfields were found to be unsuitable for the largest type of bomber aircraft which were being used by the United States Air Force. It was hoped that the aerodrome on Wakde Island, just over a hundred miles to the West of Hollandia, would prove to be good enough and it was marked down, therefore, as the next objective.

On 17th and 18th May, 7,000 troops landed, covered by aircraft from the recently captured airfields and, after overcoming considerable resistance put up by the garrison of 750 men, occupied the island. The Allies lost 110 men all told: there was one enemy survivor.

Just West of Wakde is Sarmi, where there was a small Japanese force; this was allowed to remain in position as good use was to be made of it. When reinforcements arrived from America or Australia, it was found that the men needed battle training and to learn more about jungle warfare. This training was provided by sending the raw drafts to Sarmi, where the enemy gave them all the practice that they needed. Except for these training exercises, the enemy remained quiet.

BIAK

After Wadke airfield had been put into full working order by the Allied air force, General MacArthur ordered a further advance to the Island of Biak in Geelvink Bay. As the best aerodrome in New Guinea was on Biak, whoever held the Island would be able to control the South end of the Philippines. The Japanese had no intention of losing it, and it had been strongly fortified and was held by a force of 10,000 men of all arms. The fortress commander had also been told that reinforcements were on the way to him.

On 27th May, an Allied force of 12,000 men was landed on the island but, owing to the heavy fire put up by the defence they were pinned to the beach for twenty-four hours. The next day the force managed to climb the cliffs, they advanced inland and attempted to take the airfield from the rear. Dominating the airfield was a cavern known as West Cave; it was a hundred yards in length and was the corner-stone of the defence. The Allied attacks made little progress and, owing to bad weather, their air force was grounded and there was no carrier force available to give air cover. Fortunately the enemy, who held the airfield, were very short of aircraft.

It was now the time for reinforcements to reach the enemy. Arrangements for this to be done had been prepared in a scheme for an operation known as 'Kon.' Admiral Toyodo, Commander-in-Chief of the Japanese Imperial Navy put 'Kon' into operation on 2nd June. The scheme was that No.2 Amphibious Brigade, a force of 2,500 troops in the South of the Philippines, was to be transported in naval combat vessels and their own landing craft to Biak, where they would be landed and the combat vessels used to destroy the enemy dumps on the beaches by shelling them. In the first attempt, a force of four cruisers and nine destroyers started by night from Davao in Mindanao and tried to make a 'Tokyo Express' journey. In the morning they sighted a periscope and a little later they found that they were being

shadowed by Allied aircraft. All this information was sent to Admiral Toyodo, who also heard that a strong Allied fleet was to the East of Biak. As operation 'Kon' depended on surprise to be successful, Toyodo called it off and the force went to Sorong, the westermost point of New Guinea, where there was an enemy post.

On 7th June, 'Kon' was tried again. This time the run was to be made from Sorong by fast destroyers. Two cruisers were to support the run, and air cover was to be provided from aircraft from Sorong. The run began at midnight, and at noon the next day the force was found by Allied bombers which sank one destroyer. Allied headquarters now got busy, and Rear-Admiral Crutchley, whose ships were looking out for just such a target, was ordered to attack. Three Allied cruisers and fourteen destroyers steamed out of Humboldt Bay to intercept the enemy. Contact was made just before midnight but, having realized the strength of the Allied force, the enemy altered course to the West and went off at a speed of 32 knots. The Allied destroyers followed in hot pursuit. Both sides were firing, but it was dark and the range was 17,000 yards, so it is not surprising that no damage was done. Admiral Crutchley had given his force orders that they could pursue up to 2.30 a.m. and no longer, as otherwise they would be outside fighter coverage with the coming of daylight. The pursuers cut the range down from over nine miles to 11,000 yards, but as their guns were getting the range, the clock struck. For two hours both sides had been shooting at radar pips without effect, though the Allies claimed a hit on a destroyer. The main result was that no reinforcements had reached Biak.

Toyodo was not going to accept defeat. "If destroyers cannot get through, then try battleships." On 11th June, the "Yamato" and the "Musashi," the two 72,000 ton, 18 in. gun battleships, four cruisers, eight destroyers and smaller supporting units were collected for the attempt. Rear-Admiral Crutchley's largest ship, the "Australia," had 8 in. guns. Fortunately for the Allies fate intervened as Admiral Toyodo heard that they were attacking the Marianas Islands. The Biak operation 'Kon' was cancelled. All enemy naval ships headed North to rendezvous with the main fleet, and his naval aircraft in New Guinea were ordered to Palau. What happened in New Guinea now was a problem for the Japanese Army.

Colonel Kuzume was still holding out in Biak, but the Allies were slowly getting the upper hand. It took them three weeks, however, before they were able to dump burning petrol into the West Cave and kill the defenders. Kuzume and most of his remaining troops chose suicide in preference to being captured. A ceremony was held at which the Regimental Colours were burned, after which the survivors of the garrison killed themselves. The island was in Allied hands on 20th June.

By the end of July, MacArthur had made two more landings. One was on Noemfoor Island and the other at Sansapor on the North of Vogelkopf where the enemy put up very little resistance. The Japanese in this area, having lost their air force, and having been abandoned by their navy, were now completely isolated. The total consisted of some 15,000 troops, divided between Sorong, 40 miles West of Sansapor, and Manokwari, 80 miles to the East.

In the last twelve months, MacArthur's Allied force had moved 1,300 miles closer to Japan, and had cut off 135,000 enemy troops. These had to live as best they could, as there was very little food to be found in the jungle. The survivors were collected after the surrender of Japan. During their isolation they gave no trouble to the Allies and were of no use to their own Country.

THE MARIANAS ISLANDS

Just over 400 years ago, Ferdinand Magellan discovered the harbour of Guam in the Marianas. The Spaniards held the Islands for over 300 years, until they lost the war against the United States at the end of the XIXth Century. Spain then put the Islands up for sale and Guam was bought by the United States. They should have bought the whole chain which runs North from Guam for a distance of 400 miles, but they failed to do so and the Islands, except for Guam, were bought by Germany. Knowing their strategic value to herself, Japan took them from Germany in 1914, and captured Guam from the Americans in 1941. In the military archives in Washington, the description of the strategic value of the Marianas is as follows: "Being directly across the route from America to Japan, the Philippines, Formosa and China, the Marianas formed a barrier whose position allowed Japan to stage aircraft from their Empire and the Philippines to any island in the Western Pacific. It was possible for the enemy to concentrate an offensive or defensive air force on these islands, and to provide air cover to a surface fleet operating within fighting range. Conversely, if Japan lost these islands it would be a bad break in their defences, and a gain to their invaders." In other words, if big bombers could fly from Japan to Saipan, American bombers could well do so in a reverse direction.

The Japanese knew the value of these islands. Admiral Koga who, up to the time when he was killed in an air crash, had been Commander-in-Chief of their Navy, felt sure that the Allies would attack from the direction of New Guinea, through the Philippines. On the other hand, Admiral Nimitz was going to make a path from Hawaii straight across the Pacific, which meant invading the Marianas. He issued his plans in April, 1944, and forthwith the troops concerned, the 2nd, 3rd and 4th Marine and the 27th Army Divisions went into hard jungle training in Hawaii and in the Solomons, so as to be ready for the battle.

On 3rd May, Admiral Toyodo was appointed Commander-in-Chief Japanese Fleet, and was instructed to thwart the enemy's plans by smashing his fleet with one blow somewhere South of Truk before the end of May. The Army and Navy were to expediate operational preparations from the central Pacific to the area covering the southern Philippines and North Australia. Japanese headquarters in Tokyo were certain that the Allies would strike either at the Marianas or at the Island of Palau in the western Carolines, which had recently become the naval base in place of the much battered Truk. In the Marianas enemy troops were practising anti-invasion tactics in the same way as the Allies were practising for invasion.

When Biak was being attacked, the Japanese thought that the Allies would next attack Palau, and the fleet was kept ready for a battle in the Western Carolines. It was not until the news reached them that Mitscher's carrier force was flying up and down the Marianas, softening each island in turn, that they realized that they were mistaken. The Marianas were at once reinforced and the 118th Regiment was despatched in a convoy of seven transports. Fortunately for the Allies, the convoy ran into a pack of American submarines, which promptly sank five out of the seven. When the 118th arrived on 7th June, they were under half strength, and had lost all their equipment.

The Japanese First Mobile Fleet had a rendezvous at Tawi Tawi, an island off the North-East coast of Borneo. Owing to the presence of several allied submarines, however, it moved to Guinaras Island near Panay in the heart of the Philippines. On 13th June, Toyodo learned that the Allies were preparing to land at Saipan in the Marianas and he cancelled the 'Kon' operations to relieve Biak and ordered Admiral Ozawa to take the whole fleet towards the Marianas via the San Bernadino Straits. The fleet weighed on 15th June, by which time 20,000 Allied troops had been landed on Saipan, the most strongly defended island in the whole group.

SAIPAN

Vice-Admiral Ozawa's command consisted of his own Third Carrier Fleet and Vice-Admiral Kurita's Second Fleet which was made up of battleships and cruisers. The two Fleets² totalled:—

Third Carrier Fleet
6 Carriers
4 Destroyer divisions

Second (Southern) Fleet
5 Battleships in 2 squadrons
11 Cruisers in 3 squadrons
3 Carriers
3 Destroyer divisions

Vice-Admiral Mitscher's Fast Carrier Force³ weighed at Majuro on 6th June. It was the head of a procession of 650 ships of all kinds under the command of Admiral Spruance, U.S.N. Mitscher's force was divided into several groups and he had twelve Rear-Admirals under his command. It consisted of:—

Fast Carrier Force Fire Support Group Secondary Carrier Fleet
7 Battleships.
15 Carriers, large and small.
11 Cruisers.
12 Destroyers.

13 Cruisers, heavy, light and A.A. 26 Destroyers.

58 Destroyers.15 Minesweepers.

These were followed by the transports with fifteen destroyers and several P.T. boats. To keep the ring clear a couple of dozen submarines were spread over a wide area.

Admiral Mitscher's job was to clear the air for the invasion, Commodore Loud's minesweepers were to clear the harbours, and Rear-Admiral Oldendorf's old battle-ships were to bombard the beaches and soften the defences. These tasks were to be performed before 'D' day, which had been fixed for 15th June.

When Admiral Mitscher reached the Marianas, he launched a sweep of two hundred aircraft on 13th June, which attacked the islands of Guam, Rota, Tinian and Saipan. The enemy aircraft did their best to counter the attack, but they were manned by airforce students with very little flying and no fighting experience. The result was that the enemy lost 147 planes shot down, while the Allies lost eleven. The Japanese were very short of skilled airmen and were doing all they could to raise more, and the Marianas were apparently a training ground.

Meanwhile the battleships had carried out a seven-hour bombardment of Saipan under cover of which the minesweepers had been able to clear the harbour entrances. At the same time underwater demolition teams examined the beaches and cleared any obstructions that they could.

Saipan, Tinian and Guam were all protected by reefs, but unlike the atolls of the Gilbert Islands, they were much larger and in parts hilly. Saipan is 15 miles long and from 4 to 7 miles in width, Tinian is slightly smaller but Guam is twice as large. These areas gave the opposing forces a chance to manoeuvre and to practice the art of tactics, neither of which were possible in atoll fighting.

² See Appendix on p. 91.

⁸ See Appendix on p. 92.

Admiral Spruance decided to take the islands in the following order: Saipan, Guam and last of all Tinian. Both sides knew that Saipan was the key to the defence. It was the chief headquarters for the Central Pacific Fleet under Admiral Nagumo, as well as being that of the 31st Army under Lieut.-General Obata, and it was also the headquarters of several other minor formations. The defending force, which was made up of all arms including tanks and mountain artillery, numbered 23,000

Army and 7,000 Navy.

d

al

et

s

e

o in

re

1e

n.

se

ın

bs

of

ng

e.

rt

On 15th June, covered by a heavy naval barrage, the 2nd and 4th Marine divisions and the 27th Army division, all under Lieut.-General Holland M. Smith of the U.S. Marine Corps, landed on the South-West side of Saipan. As the enemy well knew, this was the only possible place to land owing to reefs and the steep cliffs around the island. In order to create a diversion, however, Admiral Hill put down a barrage on the North-West side. The enemy swallowed the bait and at a critical moment for themselves rushed a complete regiment away from the real landing beaches to this imaginary one.

The plan of invasion was as follows: the 2nd Marine division was to land North of Charan-Kanoa, and to move northwards along the coast between Mount Tapocho and Garapan. The 4th Marine division was to land South of Charan-Kanoa and move East to Magicienne Bay, where they were to wheel to the left and move North along the East side of the island, keeping in touch with the 2nd division. The Army would follow the 4th Marine division and move towards Nafutan Point to capture the airfield at Isley. They would then move up the centre of the island as

reserve troops.

For the first three days the fighting was very heavy, and the advance of the Allies correspondingly slow. By this time the two Marine divisions had cleared the southern portion of the island and were facing North, while the Army had captured the Isley (Aslito) airfield at Nafutan Point. Casualties had been heavy, and so far they were 5,000 killed, wounded and missing. The force was now moving North on parallel lines and had reached the rugged, broken country around Mount Tapocho. This ground was ideal for defence, and the enemy made the most of it. They had mostars and machine guns hidden in caves and other inaccessible places, which made it very difficult for the Allies to move at all.

By the end of the month, the right column of the Allied force, the 4th Marine and Army divisions, had reached a point about five miles from the North of the island. The left advance, which encountered the most resistance, was on the hills overlooking Garapan and Tanapag harbour. On 4th July, Garapan, the capital of the island fell, after which resistance was sporadic and the Japanese were broken up into parties in the northern part of the island. Several "Banzai" counter-attacks were made by the enemy. The most important of these was on 7th July, About 4,000 of the enemy including the maim, the halt and the blind, formed up in close column and charged. It broke through the Allied forward lines and, in spite of the Marine artillery cutting lanes in the column by firing "Fuse Zero," it came doggedly on and overran the guns. Drivers and cooks and finally another regiment were brought up to stem the attack and eventually there were no more Japanese left standing. As one official observer described it: "There was one space fully an acre in extent where the corpses so overlapped that it was impossible to walk without stepping on a dead man." Two days later all organized resistance ceased, but sniping continued which took several months to clear up. The Americans lost 3,500 killed and 13,000 wounded, the enemy had 24,000 killed and 2,000 wounded and prisoners. All the enemy commanders were either killed or committed suicide.

BATTLE OF THE PHILIPPINE SEA

As already related, American submarines were operating over a very wide area. Their job was twofold: they had to gain and send in any information, and to do as much damage to the enemy as they could.

On 15th June, Admiral Spruance, who had already received news of the Japanese fleet being on the move, received a report from one of his submarines confirming this fact and informing him that a large hostile fleet composed of battleships, carriers, cruisers and destroyers, was heading in his direction. This was Ozawa's fleet and its intention was obviously to relieve pressure on the Marianas.

Admiral Spruance's main task was to prevent this fleet from interfering with the ground forces, now in the process of landing on Saipan. Consequently he was unable to move farther away from the islands to meet the enemy than would enable him to protect the landing, if by chance the enemy fleet eluded him and attacked it. He sent a portion of his fleet to meet Ozawa, and a portion to the North to prevent assistance coming from the Bonin Islands. Both forces contained carriers.

On r9th June, contact was made with the enemy fleet and two aircraft carriers were sunk, the "Taiho" and the "Shokaku." Two air battles ensued, both over Guam on whose airfields the enemy carrier-based aircraft were trying to refuel. Other hostile aircraft made a large-scale attack on Admiral Spruance's fleet, but at this stage of the War the Japanese pilots were not trained up to the standard of the Americans. Out of 550 aircraft seen, the Americans shot down 400, to a loss of their own of 26 planes, and minor damage to four ships. Feeling that he was now safe from hostile air attack, Admiral Spruance pushed westward hoping to bring Ozawa's fleet into action. Next day, 20th June, air searches were instituted, but no contact was made with the enemy until late in the afternoon. By the time the carrier planes were airborne the sun was setting. It was a gamble. The Japanese were so far away that it was doubtful whether they were within range to allow their attackers to return to their base, the approximate distance being 500 miles for the return journey, plus whatever mileage might be used up in combat. However the risk was taken, and over 200 planes were flown off from the carriers in pursuit of the Japanese.

At 6.40 p.m. the aircraft sighted the retreating fleet, and attacked it for the next forty minutes, sinking one carrier, the "Hiyo," and two oiltankers and damaging one battleship, the "Haruna," one cruiser, the "Maya," and four carriers, "Chiyoda," "Junyo," "Rhyho," and Ozawa's flagship, the "Zuikaku." This was the second flagship of Oxawa to become a casualty within two days, his first, the "Taiho," having been sunk the day before by an American submarine off the island of Yap.

At 7.20 p.m. the aircraft began their long journey home; they were short of fuel, the night was dark, and the carriers were blacked out for security purposes. The first ones who were lucky enough to find their own carriers reported the situation, and all guiding lights were at once put on, regardless of the danger from enemy submarines who were believed to be in the vicinity. Out of the two hundred planes sent off, twenty were shot down in the battle, eighty ran out of fuel and had to come down in the sea and were lost. Destroyers were at once sent out to rescue any survivors that might be affoat, and fortunately they were able to pick up 90 per cent. of the crews who had been ditched.

Admiral King, the Commander-in-Chief of the United States fleet wrote in his report: "The heavy losses inflicted on the enemy's ships and the prevention of their interference at Saipan made these losses a fair price to pay in return."

The enemy continued to retire to their bases, but their carriers were very short of aircraft and pilots. The former were easily replaceable, but it would take a long time to replace the latter.

GUAM AND TINIAN

is

e

le

t.

ıt

T

1.

ıt

e

e

s

t

y

t

d

).

of

ı,

y

e

S

e

T

Now that the Japanese threat had been defeated, Admiral Spruance carried on with his plans for the capture of the second island—Guam. Guam and Tinian had been under daily bombardment by Rear-Admiral Oldendorf's battleships and cruisers ever since the landing force had been put on shore at Saipan. Two Marine divisions were landed on Guam on 21st July and, after ten days of fighting which was considered mild compared with that on Saipan, they recaptured the island, and once again the inhabitants came under the American flag. It took until November, however, before the last of the Japanese garrison was cleaned up. The Americans lost 2,000 killed and 7,000 wounded. The enemy had 17,000 killed and 500 wounded and prisoners.

Tinian, the sister island of Saipan, was the next to be attacked. This attack was carried out by the same force which had taken Saipan. They landed on 24th July, and within a week they captured the island, at the small cost of 320 killed and 1,500 wounded. The Japanese losses, as usual, were out of all proportion to those of their opponents; they lost 6,000 killed and 250 wounded and prisoners.

Tojo's cabinet fell eighteen days after the fall of Saipan. After the War was over, Admiral Osami, the supreme naval adviser to the Emperor, was asked at what point did Japan realize that the War was lost, to which his reply was: "When we lost Saipan, hell was upon us."

THE WESTERN CAROLINES

Admiral Nimitz's attack from the East, and General MacArthur's attack from the South formed a pincer movement which was gradually closing in on the nut it was meant to crack—the Philippine Islands. There remained two hard bits that would need removing before the jaws could grip. These were Halmahera, a large island 150 miles to the West-North-West of Vogelkopf, and Palau, a group of islands at the extreme western end of the Carolines.

Looking at the map, one sees that from Tokyo there runs a semi-circular line, which the enemy had hoped to hold as their defence perimeter. It runs through the Bonin Islands and the Marianas, then it curves round through Yap to Palau in the Carolines, ending at Morotai in Halmahera. This perimeter had been penetrated by the capture of the Marianas; but for the invasion of the Philippines, these islands were too far away to be used as a jumping-off ground, or as an aircraft base. Something closer was necessary, and Halmahera and Palau were selected.

While preparations for the invasion of these two places were being made, carrier-borne aircraft were ordered to operate over as wide an area as possible. Their object was that besides destroying as many enemy aircraft as they could, and so reducing the numbers that could interfere with the invasion, they would collect information and, at the same time, confuse the enemy as to where the attack was going to fall. Vice-Admiral Mitscher's carrier force went North to the Bonin Islands, the nearest group to Japan. Here they bombed Chichi Jima, Haka-Jima and Iwo Jima. They destroyed over fifty aircraft, sank six ships, and damaged all the dumps and airfields, for the loss of six of their own planes. Palau in the Carolines received similar treatment at the same time from another carrier force.

The Allied plan for the attack on Palau and Morotai was for two forces to land simultaneously on these islands on 15th September. In order to neutralize Mindanao, so that no assistance could come from that quarter, carrier strikes were made in that area a week before. These met with surprisingly small resistance, and permitted the Allies to extend the circle of their air operations over the Visayas to the North of Mindanao, and to Manila. In all these strikes it was noted that the enemy's resistance was not only half-hearted, it was also unskilled.

On 15th September, under cover of a heavy bombardment by naval vessels, Allied forces were landed on Pelelieu Island in the Palau group. Pelelieu lay about twenty miles South of Babelthuap, the largest and most strongly defended island of that group which the Allies left severely alone, their intention being to isolate it as the time and casualties that would have to be lost in capturing it could not be spared

The fighting that ensued was of the same type as at Saipan or Guam, and it continued for twelve days before the island was captured. The Japanese on Babelthaup attempted to reinforce their troops on Pelelieu by sending a convoy of fourteen barges loaded with men and supplies for the hard-pressed garrison. Six barges were loaded with troops, six with oil and petrol, and two with ammunition. The convoy tried to creep along the coast by night, so as to escape observation. However the Allied commander—Rear-Admiral Foot, who expected something of that sort would happen, had posted a destroyer and some P.T. vessels to guard against such an attempt and, at about 2.0 a.m. one morning, the destroyer's radar picked up the enemy, the look-out ships closed up, turned on their searchlights and opened fire, and in a few minutes the convoy had either been sunk or blown up.

The landing on Morotai took place on the same day as Pelelieu, but unlike that island there was no resistance. The taking of Pelelieu cost the Allies some 8,000 casualties of whom 1,200 were killed, while the enemy lost some 12,000, of whom about 500 were captured.

Meanwhile Admiral Mitscher's carrier force was covering wider and wider areas. After bombing Manila they went North over Luzon then to Formosa. Both these places were full of Japanese airfields, and the best of the remains of their air force. After Formosa they bombed Okinawa, half-way along the Ryukyu islands only 300 miles from Japan.

In these air sweeps, one point stood out, and that was that the Japanese air power was very much weaker than the Allies expected. Between 31st August, and 24th September, the Allies destroyed over 1,000 enemy aircraft and over 150 ships. They lost only 75 aircraft, and had no ships severely damaged.

The original date for invading the Philippines had been fixed for 20th December, 1944, and MacArthur's plans for this date were all made out. However Admiral Halsey's report based on the information received from Admiral Mitscher on the weakness of Japanese air power, was so important that a conference was held between the staffs of the two Allied forces, East and South. The decisions which they came to, and the plan they suggested was cabled to the Quebec Conference which was actually sitting at the time, and General MacArthur was then asked if he was prepared to accelerate his attack which he agreed to do. Within a few hours of the first cable being sent to Quebec all plans for the 20th December were scrapped, and alternative plans for the 20th October were issued.

MacArthur's force, covered by the largest modern fleet in naval history, landed on Leyte island, just North of Mindanao, on 20th October. The resistance encountered

by the landing force was very weak. Warning that a landing was to be expected had gone out to the Japanese, and Operation "SHO," the last hope that the enemy had of defeating the Allies, was at once put into effect.

But that is another story.4

d

),

t

h

s, it if is it i-of x

erthe

0

n

e .. o

i

e

e

1

APPENDIX

VICE-ADMIR	AL UZ	AWAS	THIRD	CARRIER FLEET
Taiho. Flags	ship		***	Sunk 19th June.
Shokaku				Sunk 19th June.
Zuikaku			*	Damaged 20th June.
T				D 1 41 T

 Junyo
 ...
 ...
 Damaged 20th June.

 Hiyo
 ...
 ...
 Sunk 20th June.

 Ryuho...
 ...
 ...
 Damaged 20th June.

VICE-ADMIRAL KURITA'S SECOND (SOUTHERN) FLEET

5 Battleships:	II Cruisers:
Musashi	Takao
Yamato	Atago. Flagship.
Nagato	Maya. Damaged 20 June.
Haruna. Damaged 20th June.	Chokai
Kongo	Myoko
	Haguro
	Tone

3 Carriers: Chikuma
Zuiho Kumano
Chitose Suzuya
Chiyoda. Damaged 20th June. Mogami

^{4 &}quot;The Battle for Leyte Gulf," February, 1949, p. 67.—Editor.

VICE-ADMIRAL MITSCHER'S FAST CARRIER FORCE

Rear-Admiral J. Clark

Rear-Admiral Montgomery

4 Carriers: Hornet

2 Battleships: Iowa

Yorktown

New Jersey

Belleau Wood

Bunker Hill 4 Carriers:

Bataan

Wasp

5 Cruisers

Monterey Cabot

14 Destroyers

3 Cruisers 14 Destroyers

Rear-Admiral Reeves

Rear-Admiral Harrill

5 Battleships: Washington

Alabama

3 Carriers: Essex

North Carolina Indiana

Langley Cowpens

South Dakota

II Cruisers:

5 Cruisers 14 Destroyers

4 Carriers:

Enterprise Lexington San Jacinto Princeton

16 Destroyers

15 Minesweepers under Commodore Loud

FIRE-SUPPORT GROUPS Rear-Admiral Oldendorf

7 old Battleships:

Tennessee California

Indianapolis Birmingham

Maryland Colorado Idaho Pennsylvania New Mexico

Louisville Montpelier Cleveland Honolulu Minneapolis

> San Francisco Wichita **New Orleans** St. Louis

26 Destroyers

SECONDARY CARRIER FLEET

II Escort Carriers:

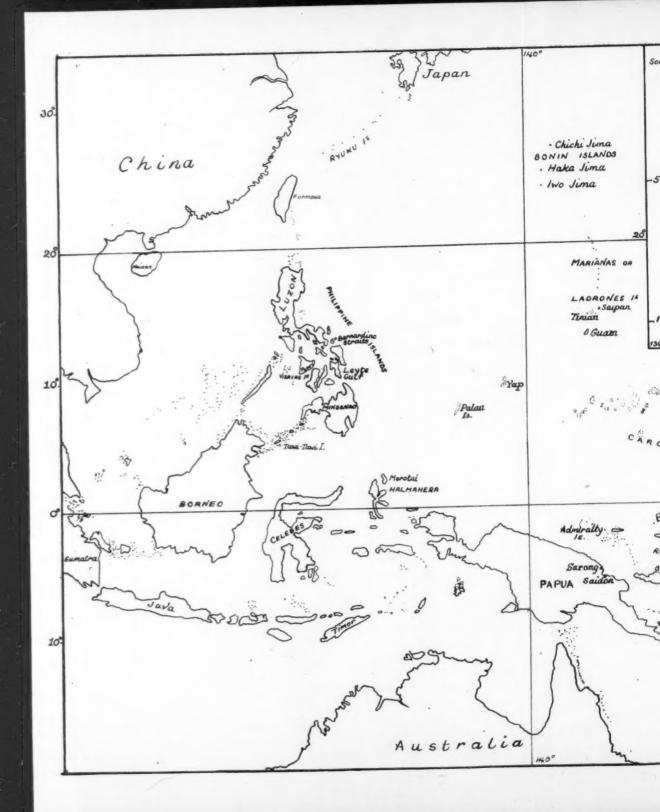
Corregidor Kitkun Bay White Plains Coral Sea Gambur Bay Midway

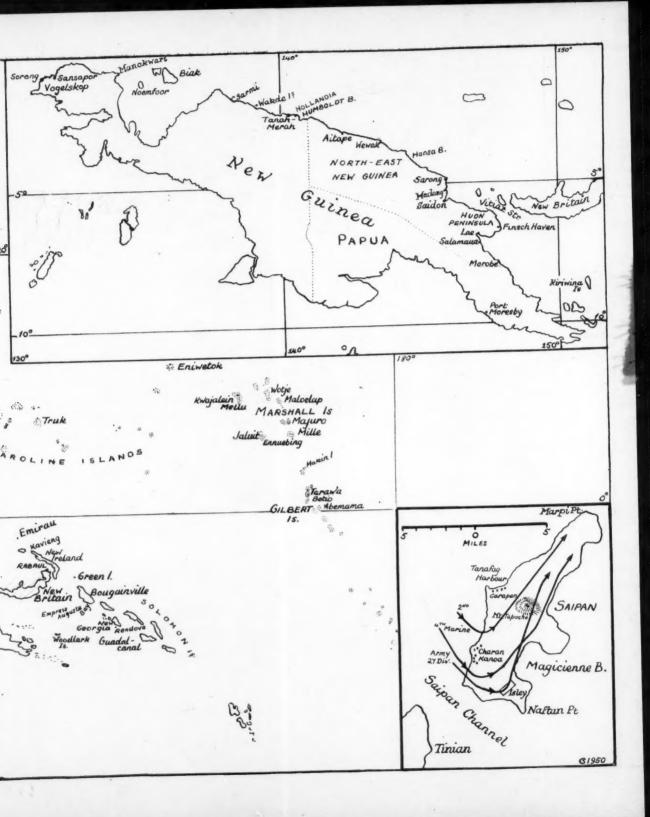
Fanshaw Bay Kalinin Bay Suwanee

Chenango Sangamon

12 Destroyers







JAF

N Bom

Neve onist disco

way
war
limi
the
to b
reco

the

white Act ran three transitions that the last ran implication in that an even

19 los tir pr

E

JAPANESE SUBMARINES IN THE SECOND WORLD WAR

By Major C. S. Goldingham, F.R.Hist.S.

R. CHURCHILL has pointed out in *The Second World War* that from the time the United States became our Ally it was inevitable that the Axis Powers would eventually be overwhelmed. The United States Strategic Bombing Survey¹, after enquiring into the causes of Japan's defeat reported:—

"There is little point in attempting to impute Japan's surrender to any one of the numerous causes which, jointly and cumulatively, were responsible for the disastrous outcome of the nation's greatest military undertaking."

Nevertheless, since in a future war Britain and the United States may have as antagonist a power with war potential as vast as their own, it seems desirable to try to discover some guiding principle neglected by Japan—an island power like ourselves—but followed by the Allies, which was basically responsible for her defeat.

JAPAN'S FUNDAMENTAL ERROR

The principle will become clear if we bear in mind that wars are won by the application of the military potential of one antagonist to his adversary. There are two ways by which this may be prevented. The first is by the destruction of the enemy's war potential, as the Allies destroyed that of Japan though the latter, with her strictly limited logistic capacity, was unable to reciprocate. The other way is by stopping the products of the enemy's war potential whilst en route to the point where they are to be applied. Japan sowed the seeds of her own defeat in a strategy which failed to recognize the necessity for preventing the employment against herself of the vast industrial-military resources of the United States and her Allies.

The Japanese entered the War with a limited object. It was their belief that, if they made the task of reconquest of the areas overrun by them in the Far East sufficiently hard, the Allies would tire of the attempt and agree to a face-saving peace which would leave Japan still in possession of most of the territory she had conquered. Acting on this assumption, they created a defensive system the perimeter of which ran from the Aleutians in the North, through the Marshall and Gilbert Islands, and through the Bismarck Archipelago, northern New Guinea, Timor, Java and Sumatra to Burma. With the inherent defects of this defensive system we are not concerned here: they constituted but one of the many contributory causes of Japan's defeat, such as failure to protect her sea communications, violation of the principle of concentration of force, adoption of a strategy which was beyond her logistic capacity to implement, the dissipation of force through defective co-ordination in the sphere of industry, and failure of co-operation between the fighting Services both at home and in the war zone. All these are minor contributions compared with the vital point that in adopting a merely static defence of the conquered territories, Japan violated an important principle and rendered defeat inevitable. The Allies, on the other hand, even during the months of retreat in the Far East, between December 1941 and June 1942, never departed from the conception of an active defence. In the process they lost almost the whole of their weak sea and air forces in the region, but they gained time for the Americans to develop their war potential. With the great American production lines running at full capacity how much greater was Japan's need to

¹ U.S. Strategic Bombing Survey. The Effects of Strategic Bombing on Japan's War Economy. (Government Printing Office, Washington, D.C.)

prevent their products from being transferred to the base of supply for reconquest, Australia and New Zealand, by cutting the lines of communication running from the United States.

ba he

res

po

th

ati

fer

wa

wa

of

(18

the

of t

the

Pal

Cal

alm

On

loss

inte

Ma

Jap

Por

alia

Sim

in t

San

Aus

beca

airfi

Esp

base

offer

ese l

East

were

upor

War

JAPANESE SUBMARINE DOCTRINE

The Germans tried to persuade the Japanese to employ their submarines to attack shipping and communications, in the manner which in two wars brought Great Britain within a measurable distance of defeat, but in vain. Their argument, supported by figures, was that the submarine campaign alone could force the Allies to abandon the War. But the Japanese strategists held that the correct basic employment of their submarines was as auxiliaries to their fleet. They did yield to German persuasion after the Battle of Midway in June 1942, to the extent of carrying out submarine offensives off Australia and in the Indian Ocean where they attacked the transports going up to Egypt for the Eighth Army. During the early months of the War a few submarines operated off California and Oregon, and alarmed the whole West coast. These were some of the submarines that had taken part in the raid on Pearl Harbour on 7th December, 1941, but although on their way to and from the West coast of America they sank a few merchant ships, no attempt was made to cut the line of communication with Pearl Harbour, the only Allied base in the Pacific capable of sustaining a fleet. The Americans fully expected an attack to be made on the freighters going up from Washington (State) with workers and construction material for the new airfields being formed in Alaska; and both the Alaskan Sector Command and the Royal Canadian Air Force were ready to move aircraft up to Kodiak, to support the patrol craft of the Royal Canadian Navy Pacific Command which was fully extended in protecting this traffic. Such was the secrecy with which the airfields were constructed, however, that the enemy knew nothing of them.

The submarine flotilla which went to the Indian Ocean remained there, based on Penang, until recalled for operations with the Combined Fleet in the Summer of 1944, but after their first offensive they never again constituted a serious menace. This is not difficult to understand, when we learn from the Japanese themselves that the Indian Ocean was specifically chosen for operations because the British were so short of anti-submarine vessels that operating conditions were less dangerous there than in the Pacific.

The Japanese submarine crews were greatly worried by the advantage given to Allied anti-submarine vessels by radar, to which they never succeeded in finding a reply throughout the War. Their submarines received their first unpleasant shocks in the Aleutians in 1942, where they found that the fogs, in which they hoped to find concealment, made no difference to the effectiveness of the attacks of the American antisubmarine vessels. In their search for devices with which to counter Allied radar they suggested the snort, coming to it quite independently of the Germans; but it was never developed or fitted.

The Japanese began the War with some forty to forty-five fully operational submarines, out of a total of about sixty, and they never exceeded that number. The shipbuilding capacity of Japan was limited, and the emphasis was not shifted to submarines and other of the lesser types of war vessels until 1943. It was partly this inability to make good heavy losses which caused them to husband their submarines. These, apart from midgets, were of two main types, large fleet submarines of the I series, and the R.O. coastal type.

IMPORTANCE OF THE AIR-SEA ROUTE TO AUSTRALIA

When Japan broke the peace with the destruction of the United States Pacific battle fleet at Pearl Harbour, the only weapon with which the Allies could apply to her the force produced by their manpower, raw materials, industrial complexes, research teams and other factors which together constitute military potential, was sea power and its component air arm. It is obvious that Japan could not hope to destroy this potential at source, for it was out of her reach, but it was within her power to attack the long Allied lines of communication by which this war potential was transferred to Australia and New Zealand,

The only base from which the reconquest of the lands seized by Japan could start was these two Dominions. Mercator's projection, a misleading expedient which every war planner should try to banish from his visual memory, coupled with the practice of cartographers of cutting the map of the World in two near the Pacific date line (180°), fails to show how huge was the task imposed on the Americans who conducted the war in the Pacific, by the fact that weather conditions ruled out the employment of the short route to Japan, via Alaska. They had consequently to work down across the Equator, through Bora Bora in the Society Islands, or via Hawaii, through Palmyra, Christmas and Canton Islands, Samoa, Fiji, the New Hebrides and New Caledonia, thus adding immensely to the distance. Along this route had to come almost everything except foodstuffs which Australia and New Zealand could supply. On the islands, naval bases and airfields had to be constructed and garrisoned. The loss of Wake Island in December, 1941, necessitated the southern air route being taken into use; and, though incomplete, it was used as early as January in the following year. Many more months elapsed, however, before the defences of the various bases were complete. During those months this was the Achilles heel of the Allies in the Pacific.

THE STRUGGLE FOR THE SOLOMONS

The first serious threat to the line of communications came in May 1942, when the Japanese sent a seaborne expedition with powerful aircraft carrier support to capture Port Moresby, the Allied base in southern Papua, across the Torres Strait from Australia. This was successfully repulsed by the Allies, though at the cost of one of the very few aircraft carriers upon which their position in the Pacific ultimately rested. Simultaneously, the Japanese established themselves at Tulagi, the best anchorage in the southern Solomons. The enemy intention, not known to the Allies at that time, of course, was to invade "strategic points around the New Caledonia, Fiji, and Samoa islands" and to destroy "important enemy bases," to effect the isolation of Australia⁸. Early in July the threat to the line of communications with Australia became evident when it was discovered that the Japanese were constructing a great airfield on Guadalcanal Island, close to Tulagi, 550 miles from the Allied base at Espiritu Santo in the New Hebrides and 800 miles from their important South Seas base at Numea in New Caledonia. The Joint Chiefs of Staff ordered an immediate offensive to be opened to counter the threat. Before the end of the month the Japanese began a second advance against Port Moresby, overland from Buna on the North-East coast of Papua; and they were within 30 miles of their objective before they were halted.

The chances of recovering Guadalcanal from the Japanese depended entirely upon the possibility of the Allies being able to maintain the reinforcement and supply

² Imperial General Headquarters Order quoted in U.S. Army in World War II. The War in the Pacific. Guadalcanal, The First Offensive. By J. Miller, Jr. (Department of the Army, Washington. D.C.).

ul

qı

re

of

ca

ai

ce

wi

isc

IQ

ma

sei

an

wh

WO

the

kno

Jap

In

ma

mo

Arr

bet

sev

witi

Son

two

incl

(Go

Lon

of the garrison of the bridgehead they established on the island, and making good the losses of aircraft suffered at the airfield which they had captured immediately after their landing on 7th August. The Japanese should have recognized that their ability to hold Guadalcanal depended upon disrupting the line of communication from the Allied base at Numea. It seemed at first as though they intended to concentrate upon it. They called up their submarines which were operating off the East coast of Australia and, with ten or twelve additional boats from the Sixth (Submarine) Fleet which was based at Kwajalein in the Marshall Islands, tried to cut the supply line.

The Allied shortage of transports and cargo ships, as well as the paucity of antisubmarine vessels to protect them in the face of the menace, necessitated passing in
reinforcements and supplies by means of old destroyers converted for the work.
Before the month was out the enemy submarines had created a serious situation. On
the morning of 31st August, whilst two of the American carrier task groups were
patrolling East of the route from Numea to Guadalcanal, which they were covering,
the aircraft carrier "Saratoga" was torpedoed by the Japanese submarine I-26
which fired at her from outside the circle of screening destroyers. The "Saratoga"
was able to reach harbour under her own power, but she was badly damaged and had
to be sent to Pearl Harbour, the only American base in the Pacific capable of carrying
out repairs to her at that date.

A week later the aircraft carrier "Hornet" and the new battleship "North Carolina" were attacked. The latter was missed, and the torpedoes aimed at the "Hornet" were exploded by one of the patrolling aircraft which dropped a depth charge near them in the nick of time.

On 15th September, there occurred an incident of a very rare nature, which is worth recounting in some detail. On that day the "Wasp" was torpedoed whilst covering an important convoy of reinforcements for Guadalcanal. As she was turning back to the course of the fleet after flying operations she was struck by three torpedoes simultaneously, fired by the Japanese submarine I-19. The time was 1444 hours. The shock was terrific. The ship whipped unbelievably. Huge explosions tore her to pieces and she had to be abandoned and sunk. Some five to six miles to the North-eastward of the "Wasp's" task group a second patrolling group consisting of the "Hornet," "North Carolina" and screen, were conforming to her move-The "North Carolina" had just steadied on the new course of 280° at 1450 hours, when she intercepted a broadcast warning from one of the ships of the "Wasp's" screen, that a torpedo was heading for the force, course 80°. The "North Carolina" manoeuvred to avoid it, but was struck on the port side at 1452 hours. Despite a rent in the hull below water, 32 ft. long by 18 ft. high, and severe structural damage, the ship built up speed to 25 knots and remained in the formation. Two minutes later the destroyer "O'Brien," on her port quarter, was hit. Unknown to I-19 the salvo of torpedoes which sank the "Wasp" was responsible also for torpedoing the "North Carolina" and "O'Brien" between five and six miles away.

The Japanese failed to persist in the offensive against the communications with Guadalcanal, and with the torpedoing of the cruiser "Chester" on 20th October, by I-176, the submarine offensive came to an end. It is not without interest to spec-

³ The Japanese claimed a speed of 49 knots for their Type 93 Model I torpedo, with a range of 22,000 yards, i.e. 6-7 minutes running time for a range of five to six miles. Report of a U.S. Naval Technical mission to Japan quoted in *History of U.S. Naval Operations in World War II*. Vol. III. The Rising Sun in the Pacific. By S. E. Morison.

ulate whether the Americans would have been able to hold on and eventually reconquer the island, if the Japanese had prosecuted the offensive with greater vigour and continued it longer. The whole problem of holding on in Guadalcanal was to pass in reinforcements and replacements of the garrison weakened by malaria and lack of food—for it was weeks before the food supply sufficed for three meals a day, except for those in hospital.

USE OF SUBMARINES FOR TRANSPORT AND SUPPLY

In place of concentrating their efforts against the supply line the Japanese reduced the number of their submarines by employing certain of them on the work of transport and supply, a most wasteful proceeding in view of the submarine's small carrying capacity. The gradual ascendancy gained by the Allies, particularly in the air, in the Solomons and New Guinea (where General MacArthur's campaign was proceeding simultaneously), and in the Aleutians, drove the Japanese Navy against their will, at the behest of the Army, to use submarines to supply their beleaguered garrisons. After the opening of the American advance in the Central Pacific in November, 1943, the Japanese carried out the supply of their by-passed island bases in this manner, and brought back their wounded and sick. The American practice of seizing only such places as they required in connection with their further advance, and by-passing the remainder, was first developed in the Solomons and New Guinea, where it was rendered possible by the domination of the air which the Allies eventually won. It found its highest expression in the Central Pacific, and contributed much to the speed of the advance. Reporting on the campaign, Admiral King wrote:

"To control the seas and render secure a route from Hawaii westward, it was not necessary to occupy every atoll. We could and did pursue a 'leap-frog' strategy, the basic concept of which is to seize those islands essential for our use, by-passing many strongly held intervening ones which were not necessary for our purposes. This policy was made possible by the increasing disparity between our naval power and that of the enemy, so that the enemy was and still is unable to support the garrisons of the by-passed atolls. Consequently, by cutting the enemy's line of communication bases, the isolated ones become innocuous, without the necessity of our expending effort for their capture."

The exact number of boats employed on the work of transport and supply is not known, for the Japanese destroyed most of their submarine records. But out of 129 Japanese submarines sunk during the War, twenty-five were sunk whilst thus engaged. In 1944 and 1945 half the submarine building capacity of Japan was devoted to submarines specifically designed for the work of transport. Some of these could carry more than 1,000 tons of cargo, but many were very small. Some were built for the

Army, and soldiers were sent to the Navy submarine schools for training4.

Three or four submarines were regularly used to transport valuable war material between Germany and Japan. Admiral Groos states⁵ that in 1944, no less than seventeen German, one Italian and one Japanese submarines were despatched to Japan with mercury, lead, aluminium, glass (special optical) and steel, a total of 3,722 tons. Some of these submarines were lost, and after some delay caused by the sinking of two surface tankers which were to refuel the blockade runners, twelve submarines, including two Japanese, set sail from Japan. Only three, including one Japanese,

⁴ U.S. Strategic Bombing Survey. The War Against Japanese Transportation, 1941-45. (Government Printing Office, Washington, D.C.)

⁶ Blockade running to and from Japan, Report No. BIOS/JAP/PR/1608, H.M.S.O., London.

arrived in German controlled territory. The time taken to make the trip to Japan and return to Germany was eight months,

b

tr

SI

in

fit

TI

de

ci

al

se

m

th

wl

FI

de

at

Ba

air

ta

su

ca

Ja

rej

an

an

na

ern

In the closing months of the War the Japanese made elaborate plans for blockade running of oil and other critical materials from the Southern Area (Netherlands East Indies and Malaya) to Japan by transport submarines, but the Navy considered the results to be achieved negligible, and only two trips were made.

THE JAPANESE MIDGET SUBMARINES

The attack on Pearl Harbour, with which the War opened, provided almost an epitome of the operational employment of Japanese submarines throughout the War. Some twenty took part in the Pearl Harbour operation. Three of these formed an advanced screen for the aircraft carrier force that made the attack. A few, equipped with aircraft, carried out reconnaissance in the South Pacific; and the remainder were placed on patrol at varying distances from Pearl Harbour, their duty during the raid being to attack any ships that succeeded in escaping from the harbour. Five of the large submarines carried a midget submarine secured on deck, instead of an aircraft. These midgets, which had a crew of two and were armed with two torpedoes apiece, were loosed from the parent submarine and despatched to attack the United States Pacific Fleet in Pearl Harbour immediately prior to the air raid. As far as is known, only one succeeded in entering the harbour, and all five were lost without having succeeded in effecting any damage.

Midget submarines were employed again in the simultaneous attacks on Sydney Harbour, N.S.W., and Diego Suarez—where the Japanese apparently expected to find the British Eastern Fleet—at the end of May and beginning of June 1942. Four midgets were carried by submarines to Sydney whilst a fifth submarine carried an aircraft which reconnoitred the harbour before the attack. The only important warship present was the U.S.S. "Chicago," a heavy cruiser which was mistaken for the "Warspite." By following in the wake of a fishing vessel two or three of the midgets managed to get into the harbour during the night. The "Chicago" opened fire on them, but could not depress her guns sufficiently; but harried by two Australian corvettes and the American destroyer "Perkins," the only damage the enemy effected was to torpedo H.M.S. "Kuttabull," an old ferry boat converted into a floating barracks. All four of the midgets were destroyed.

After the attack, and apparently whilst waiting in the hope of recovering the midgets, one of the submarines lobbed a few shells into a suburb of Sydney. Japanese submarines constantly carried out short bombardments of the shore throughout the War, but it was seldom that any military damage was caused, and the practice was a waste of effort. Only at Guadalcanal, where at one period submarines bombarded the airfield every night, were their efforts of a high nuisance value, for though little damage was caused, the rest of the exhausted Marines was disturbed. The submarines wasted days on long passages to outlying islands such as Midway, Johnston and Canton, for the purpose of futile bombardments.

Besides the two-man midget submarines the Japanese had a one-man torpedotype submarine. This was, of course, a purely suicide weapon. Eight of them were transported by two fleet type submarines to attack the American fleet in Ulithi harbour in November, 1944, and succeeded in torpedoing a tanker.

OPERATIONAL EMPLOYMENT OF JAPANESE SUBMARINES

The Japanese carried out some remarkable feats of reconnaissance by submarine-

borne aircraft. Morison⁶ tells us that in the belief that U.S. forces were concentrating between Seattle and Dutch Harbour (in the Aleutians) the Japanese made a careful reconnaissance of the possible invasion ports by submarines. In May, 1942, one of the large aircraft-carrying submarines proceeded to the coast of Washington State and reconnoitred Seattle by aircraft; and the Japanese high command was much relieved that no heavy ships were there.

Another curious device suggested by the Japanese was to place a small submarine in the van of the fleet to attack the enemy fleet. A carrier, the "Chiyoda," was fitted for the purpose of conveying the submarine to the spot, but was sunk before

ever being employed in that manner?.

When Admiral Nimitz opened his trans-Pacific thrust in November, 1943, the conditions of submarine warfare were very different from the early days of the War. The effectiveness of search by submarine reconnaissance aircraft had been much reduced by the increase in the number of Allied aircraft now available. The Americans had developed highly efficient anti-submarine devices, but the Japanese had not developed commensurate defence. This was no doubt partly due to the fact that civilian scientists were given no part to play in research work for the Army and Navy: all was done within the Services themselves, and for the most part by each Service separately. Attack on shipping was becoming too dangerous for the Japanese sub-Their submarine force was still weakened by the diversion of a flotilla to the Indian Ocean. Moreover, the virtual destruction of the Japanese Naval Air Forces, both carrier-based and land-based, in two years of ceaseless operations, during which they had been recklessly employed, rendered it impossible for the Combined Fleet to oppose the new offensive in the Central Pacific. Consequently, it was decided to employ submarines operating independently of the fleet, in the path of the U.S. fleet. There were at the time some 20 Japanese submarines in the Sixth Fleet, based at Kwajalein in the Marshall Islands. Apart from sinking the escort carrier "Liscome Bay" they had no success, chiefly because of the extent and effectiveness of the U.S. air patrols. In any event, they could not possibly have defeated an offensive undertaken on the huge scale of the American Central Pacific advance, for of the 20 enemy submarines detailed no more than a third were on patrol at one time.

At one period the Americans believed the Japanese were using aircraft-carrying submarines to scout for their carrier force, and the latter, after the position of the U.S. carriers was reported by submarine, launched their air groups to attack. The Japanese state that though their submarines did report the fleet they made their reports, not directly to the carrier force, but to Headquarters, from where the messages were relayed to the fleet. The carriers made tactical searches with their own aircraft and did not expect co-operation from submarines. Similarly, co-operation between the Japanese big four-engined reconnaissance seaplanes and submarines, and between aircraft and A/S vessels during anti-submarine hunts, was not good, mainly owing to the difficulties of communication. There was one occasion, however, when the enemy submarines and aircraft co-operated successfully, and it was fraught with disaster for us; for it was a submarine which reported the position of the "Prince of Wales" and "Repulse" on 10th December, 1941, and enabled the Japanese shore-based

naval air force to attack and destroy them.

Japanese submarines were not high on the American priority list for sinking, and

⁶ History of U.S. Naval Operations in World War II. Vol. IV. Coral Sea, Midway and Submarine Actions., pp. 169-170. By S. E. Morison.

⁷ U.S. Strategic Bombing Survey. Interrogations of Japanese Officials. Vol. II. (Government Printing Office, Washington, D.C.)

American submarines were never specifically employed solely for anti-submarine duty, that is, as normal A/S units were employed⁸; but U.S. submarines sank no less than 23 Japanese, the first enemy warship sunk by a submarine being a submarine, I-173, which was sunk by the "Gudgeon" off Midway on 27th January, 1942.

No successful attacks were made by Japanese submarines on their American opposite numbers; in fact, very few were made. Admiral Miwa knew of only two attempts. One of these was deliberate. In June, 1944, an American submarine was located near Okino Daito Shima (Rase Island), about 350 miles South of Japan, and the Japanese sent out two small submarines to attack it; but without success.

JAPANESE SUBMARINES AT THE BATTLE OF THE MARIANAS

au

nc

SO

de

ba

ca

or

of

ba

ex

as

kn

are

ane

life

a fa

his

con

ma

in a

nou

154

con

last

pro

sho

leas

stuc

of 1

trad

with

Sim

of tl

that

prof

In June, 1944, Admiral Spruance, who was in charge of the Central Pacific operations at the time, reached and assaulted the Marianas. This was the point at which, under the revised war plan in force at the time, the Japanese Combined Fleet was to be committed in defence of the perimeter, for it had been hoped that the air groups would have been reconstituted by the time the Americans reached the Maria-The submarines were to operate in co-operation with the Combined Fleet. The result was not satisfactory; and when opposing the next Allied assault, that against the Philippines, the submarines were disposed for defence against the landing operations, independently of the fleet. In the final amphibious operation of the War, the assault on Okinawa in April-June 1945, the Japanese made their final submarine effort with fleet and short-range types and midgets. Their losses were high and the results they achieved were dwarfed into insignificance by the damage caused through the new Japanese method of suicide aircraft operating. The submarines showed little initiative. For example, the position of the British Pacific Fleet, which was engaged in guarding the left flank of the operation, was well-known to the Japanese who constantly subjected it to damaging air attacks. But the enemy never ordered their submarines to attack it.

CONVERSION TO A SUICIDE FORCE

The Japanese submarine service had already begun to fade out of the picture of the war. By March, 1945, Admiral King reported, they had been nearly driven out of the Central Pacific by the American counter-measures. Even by 1944, unescorted armed merchant ships were crossing the Pacific with impunity. For months past, the Americans had been operating their fleet with scarcely a thought of the submarine danger, as we ourselves did when our fleet entered the Pacific. Trains of supply ships brought out to the fleets from the forward bases all fuel, ammunition and items of equipment and supply needed and transferred them to the ships at sea. After Okinawa the enemy submarines were withdrawn to the homeland to aid in the defence against invasion, and the Allied fleets operated undisturbed.

The Japanese submarine service, like their air forces, was being transformed into a suicide arm. After the virtual destruction of the Combined Fleet in the Battle for Leyte Gulf in October, 1944, the Country's resources were so diminished that it was impossible to reconstitute the fleet. Consequently, the building of two-man submarines, which had been in abeyance for some time, was recommenced actively with a view to employing them for defence against the expected Allied landing in Japan. The landing was rendered unnecessary, however, by the success of the Allied air offensive, and Japan surrendered in August, 1945, with her shores untrodden by an invader.

⁶ U.S. Submarine Operations in World War II. By T. Roscoe, prepared under the supervision of the Bureau of Naval Personnel.

REGIMENTAL TRADITION IN THE INFANTRY OF THE LINE

By Major C. E. Jarvis, Honourable Artillery Company (late 1st King George V's Own Gurkha Rifles)

THERE appears to be a general uneasiness about the present organization of the Infantry of the Line, exemplified yet again in "The Brigade Group and Regimental Tradition" which appeared in the JOURNAL of August, 1950. The author, "Judas," made many illuminating and valuable remarks and suggestions but seemed uncertain whether, under modern conditions, tradition has any real value or not. Just in case it has, one feels, he comes rather grudgingly to a compromise solution of the problem. The present writer therefore proposes to examine in more detail the essential qualities of tradition and the general principles upon which it is based, with the object of establishing its value and its importance as a factor which cannot, without danger, be ignored in the consideration of any changes in the present organization of British Infantry.

THE VALUE OF TRADITION

A large volume might be written on this subject: if we confine our consideration of it to the value of regimental tradition in promoting the efficiency of infantry in battle, it is suggested, in the first place, that it is unsound to reject the opinions of experienced officers who have commanded troops under active service conditions: as evidence such opinions have considerable cogency, for they are based on first-hand knowledge and are often in agreement. Nor should they be dismissed because they are not supported by logical exposition: men of action are sometimes inarticulate, and in any case the beliefs that are most strongly held and acted upon in the affairs of life are often those which are the most difficult to justify in reasoned words. Thus a father may find it difficult or impossible to explain why, for instance, he would like his son to have a classical education; but he will spend considerable effort and money to ensure that he does.

"The British are not an imaginative race by nature," says "Judas": this is a controversial statement indeed; but even if it is admitted, it surely cannot be maintained that we are not, as a race, traditionalists. Anyone who looks about him in a business centre in almost any town will probably see at one glance some such announcements as "Established 1726," "Founded 1660," "This Inn was rebuilt in 1544" and "The oldest wine house in——"British people, it seems, find something to comfort them in such evidences of stability and continuity: they feel that what has lasted a long time must have some inherent virtue and vitality and therefore is probably worth perpetuating. It should be noted at this point that a love of tradition should not be confused with a sound historical knowledge, in which the English, at least, are notoriously deficient. An undergraduate member of an ancient college or a student of an Inn of Court probably has the flimsiest idea of the history of the society of which he has become a member: none the less he unconsciously imbibes its traditions and influence and is likely thereby to become in some degree identified with the other members of it, and gain confidence and pride in that association. Similarly it takes an expert in military history to understand the strategy and tactics of the Waterloo campaign: but any private soldier can be fortified by the knowledge that his regiment was at the battle, if he understands nothing more about it whatever.

If it be admitted then that the British find pleasure, and even perhaps some moral profit, in their traditions, it seems likely that British soldiers too will tend to prize

Is

ba

H

an

it

tal

sir

CO

Sin

tec

all

is i

vie

Iri

COL

pro

COL

kno

are

cul

tha

of t

or e

is a

one

beca

mer

hav

Yet

hone

for l

a riv

the military traditions they have inherited. More particularly, the soldier's trade is a dangerous one, especially the infantry soldier's; any man who is to face danger and death must be in some way built up and fortified before he can be confident that he will not flinch from that stern assignment. Saints and martyrs have in themselves enough spiritual toughness and faith to be able to endure without human aid; but the ordinary man, it is suggested, needs to feel that he is one of a specially chosen and selected company, membership of which at once inspires him to the utmost of which he is capable and reassures him that his comrades too are of the same high quality. It may be further suggested that such a consciousness of belonging to a corps d'elite may be induced in four main ways:—

- (i) By selection. Thus the commando raider or the airborne soldier knows that he and his fellows have passed a rigorous physical test and have emerged successfully from a period of intense and exacting training and testing. He is confident that having endured so much nothing can defeat them.
- (ii) By obvious differentiation. This explains why the Royal Navy has no need to try to maintain "crew spirit" (if that is the equivalent of regimental tradition): every rating knows that simply by being a seaman he is a different kind of person from a mere landsman, and, because he has mastered an element which the latter instinctively dreads, a superior one: and so are all "they that go down to the sea in ships" along with him.
- (iii) By technical attainment. Here again the Royal Navy scores, and so do the Royal Regiment of Artillery and the Royal Engineers to both of whom still accrues the prestige due to a "scientific corps": every gunner and sapper knows that he is a skilled man to whom, as to his companions, delicate instruments and weapons of precision are entrusted.
- (iv) By membership of an organization which has its own strongly marked and characteristic habits, standards, codes of behaviour, even a distinctive dress, in a word, its traditions, in which the individual can share and take pride.

It follows that while those in any of the first three classes often enjoy the advantages of the fourth as well (a member of the King's Troop, R.H.A., is an example of a soldier who can be included in all four) the infantry soldier must depend entirely upon the fourth, for it is all that he can hope for. Whatever laudatory things important people can find to say, especially in war-time, about the infantryman, it must be admitted that he is what is left over when all the experts, scientists and intellectuals have been taken away, and, while everyone else who is employed in the fighting Services is some sort of specialist, the infantry soldier is a Jack of All Trades if ever there was one: though he has certainly shown a remarkable aptitude for mastering them successfully.

It is for this reason that the infantryman, and particularly the infantry officer, sets far greater store by tradition than do members of the other arms; it is a sound instinct which makes him insist upon the differences which distinguish his regiment from others, even if he seems thereby to attribute undue importance to minutize of dress, drill or deportment. Upon precisely such details is founded the conviction of the foot soldier that he is indeed one of the Elect.

History suggests that the British Infantry may fairly claim to be second to none in staunchness and fortitude in battle: until recently at any rate regimental spirit was the characteristic feature of that Infantry, every member of which was determined that his regiment should hold its ground regardless of what its neighbours might do.

Is it too paradoxical to claim therefore that the success of British Infantry has been based upon the principle "Divided we stand"?

The value of regimental tradition also appears in its effect upon leadership. Here again the commander of the more technical arms has an advantage; the most important part of his task is the application of principles, scientifically established and agreed upon, to a given situation which may indeed be affected by the fact that it occurs in time of war but is not radically altered thereby. Thus, in peace or war, it takes very little time for a seaman with any experience at all to sum up a new Captain: simply by observing the way he shapes he will very soon gain confidence that his commander is among those who can claim with truth," I never run a ship ashore." Similarly it is very soon clear whether a commander of artillery or engineers is technically competent. But the command of infantry in action is far more closely allied to an art than to a technique: it consists of the application of principles, it is true, but these principles are profoundly modified by the individual commander's view of the way to apply them, in fact, by his personal character. Thus a thrusting Irishman may attack with three companies up, while a cautious Scot may prefer to commit only one company at the outset: both may succeed admirably, but it is probable that neither will have much success at all unless he has somehow gained the confidence of his men before the battle, so that every soldier will go "all out" without anxious fears of something going wrong. Such confidence is based on knowledge, and knowledge is more easily and quickly acquired if both leader and led are on the same metaphorical "wave-length" as the result of a common military culture and upbringing based on shared traditions. A commander of outstanding personality can "get himself across" in any event, but even he will have to overcome that feeling of hostility and mistrust which always meets a stranger: the existence of this time-lag may be of vital importance when a commander takes over just before or even during a battle.

THE PROBLEM

If the influence of regimental tradition, particularly in the case of infantry, is admitted, it is clear that it is an asset to be fostered and encouraged provided that the soldier, as a general rule, can start and continue his military career as a member of the same regiment. But if the system involves the probability of transfer from one regiment to another of the individual soldier, not as a volunteer, but simply because of the requirements of a situation over which he has no control, then regimental tradition is just as obviously only going to prove a liability.

This will be true in the highest degree of British soldiers, for centuries of history have had the effect of teaching us as a nation the virtue of a sceptical outlook, and notably the avoidance of any form of self-glorification or boasting, for

"This is the state of man; to-day he puts forth The tender leaves of hope; to-morrow blossoms And bears his blushing honours thick upon him; The third day comes a frost, a killing frost, . . . "1

Yet it is only human for one who is proud to belong to some perhaps ancient and honourable institution, be it a college, society, firm or regiment, to need some outlet for his pride: and this is often found to take the form of depreciatory references to a rival or neighbouring institution of the same sort. This attitude is harmless enough

¹ Shakespeare, Henry VIII, Aci III.

in most other cases, but it will have highly demoralizing results when a soldier who has learnt the splendid traditions of his own regiment suddenly finds himself transferred against his will to another of which he knows, if anything, very likely the worst. It is probable too that such a transfer will take place on one of three most inopportune occasions:—

(i) In peace-time, when the unit to which the transfer is made has for some reason suffered an unexpected loss of numbers; in its weak state it will be compelled to absorb a large number of unwilling strangers and will find its own spirit considerably diluted as a result.

ef

aı

as

ar

co

th

ex

as

un

- (ii) On the outbreak of hostilities, when a unit is moving to the front and is hastily made up to strength by drafts collected from the nearest available units, which are thus in their turn depleted.
- (iii) In battle, after a unit has met with unusually heavy casualties, and is thereby very possibly suffering from a decline in confidence and morale. Soldiers posted to such a unit from outside will find their worst forebodings justified.

With these possibilities in mind it is easy to see why a certain school of thought advocates scrapping the Regimental System and the formation of a Corps of Infantry. Administration would perhaps be rendered easier thereby, but if there remains any likelihood of regimental tradition containing so great an intrinsic value as has already been suggested, such a policy will run the risk of depriving the foot soldier of something so essential that he will only be comparable to a sailor without a ship or an artilleryman without a gun.

THE SOLUTION

The ideal solution of this problem must surely be one which makes the utmost use of all the advantages we already possess, and blends them into some system which will as far as possible ensure their continued existence. The formation of a Corps of Infantry would not in fact achieve the end to which it is directed, for it would have to be divided into sub-units whose members would immediately begin to evolve their own esprit de corps and would be equally disgruntled and depressed at being transferred elsewhere.

It seems clear that the main weakness of the present system is the existence of single-battalion regiments which lack the numbers and the flexibility to keep themselves maintained up to strength from within their own resources. Hence "Judas" proposes that Brigade Groups, formed out of battalions of various regiments which compose them at present, should be re-named Regiments and should presumably function very much like certain four-battalion regiments which existed under the Cardwell system.

Such a system would indeed provide the numbers required, but its weakness is that the Brigade Groups have at present no traditions at all. They have never existed as fighting formations but are synthetic products devised for training purposes with the object it seems of keeping as many battalions in nominal existence as possible. Nor, it is suggested, can Brigade Group traditions be manufactured by making a composition "of those aspects of the various regimental traditions which could conveniently be amalgamated." Traditions cannot be thus arbitrarily amalgamated by selection.

It is submitted therefore that our infantry traditions have such a great intrinsic value that they must be preserved in any re-organization which is intended to promote efficiency in battle. These traditions started and developed as regimental traditions, and it appears therefore that a true Regimental System should be restored. Once again we are learning the old lesson that infantry is the arm which wins battles, and that victory can only be assured by our having "enough of it." It is to be hoped therefore that the Infantry will regain its preponderance in numbers in our Army, and that it will again be possible to organize the Infantry of the Line in regiments composed of at least two battalions each. If not, it is suggested that we must face the disagreeable necessity of the disbandment of certain regiments at present in existence; only thus could the remainder be restored to such a numerical strength as is required, in modern conditions of peace or war, to support, vigorous and unimpaired, the regimental traditions which we have inherited from the past.

and them which the tage for any come is considered the set framed for the Command Windowsky to the Command Windowsky to the Command Windowsky to the Command Windowsky to the Command the Command Windowsky to the Command the Command Windowsky to th

the desired at the property of the property of the property of the property of

THE CASE FOR THE REGIMENTAL SYSTEM

LIEUT.-COLONEL B. E. FERGUSSON, D.S.O., O.B.E., THE BLACK WATCH

T will be a sad day and an evil day for the British Infantry if the reformers succeed in weakening or destroying the regimental tradition."—Field-Marshal Earl Wavell, 1950.

Recent communications in the JOURNAL have dealt with the Group System as if it had come to stay. The first (to which the author did not put his name) praised it and demanded support for it; the second described it as "the lesser of two evils"; the third, which was also under a pseudonym, reinforced the first. Propaganda for the Group System has been intense and skilful, as these articles show. It is time that infantry officers realized that the threat of a Corps of Infantry as the only alternative to the Group System is false. Lord Wavell was bitterly opposed to both, and was engaged at the time of his death, and for three years before it, in striving for a return to the Regimental System. He was making headway; but now that his powerful voice is stilled, we must champion ourselves.

Nobody likes the Group System. I think we must accept it in war, although every effort should still be made to replace casualties from the regiment that has suffered them. The Group System should be regarded, as a certain General put it some months ago, as "a system of support trenches to which we were forced to retire, and from which the time has now come to counter-attack." It was framed by General Wimberley towards the end of the War; he was an infantryman and he did his best; he did well to hold up the penetration where he did.

m

T

fre

W

ho

a

Wa

hi

for

aff

is

an

yea

tho

WO

inc

of 1

the

of t

a to

that

an a

wou

Arm

quic

tran

regi

The Infantry remains the first line of any army. Future developments may alter its status; but the ultimate object of every arm to-day is to put the Infantry on to its objective whether that be the next hill, the next river-line, Berlin or Tokyo. In the later stages of a war, when the tide is flowing with you, it matters less how your battalions are made up. In the initial stages it matters a great deal. Hotch-potch battalions made up by cross-posting could not have acquitted themselves so well as ours did in the days of the defiles—1940 in France, 1940-41 in the Middle East. Battalions in those circumstances must sustain defeat and win experience without loss of morale; and they cannot do that without drawing on the last breath of pride and tradition. Everybody who has taken part in such fighting knows that.

Those battalions, especially in France, were largely made up of reservists. These men came back from civil life into their own niches in their own regiments, among their old comrades. How would they have borne themselves under the Group System? We also know that during the Korea crisis reservists were sent to regiments of different Groups and even of different Countries. How has that worked?

It is claimed that only the Group System has made it possible to maintain at full strength battalions which have been on active service since the War. Yet outside the Brigade of Guards (who have avoided the Group System) no effort has been made to draft by battalions instead of individuals. This point we will consider later. If there have been difficulties in finding full-strength battalions for Palestine, Malaya and Korea, it is because, in pursuit of the policy of the "balanced army," we forgot that the supreme need of the Army between wars, in Imperial Policing, is for infantry. With the disappearance of India as a Country to be garrisoned, our need for infantry was admittedly reduced, and there was no longer a requirement for sixty-four regiments, each of two battalions. The total number of battalions was therefore

divided by two, in order to avoid the distasteful business of making an invidious selection of which regiments were to lose one battalion and which to retain both. As a result, the individuality of all the regiments is now in danger.

Within a regiment, the capabilities of every officer, n.c.o. and man are fully known. Under the Group System, the control of these individuals passes to various outside authorities, and such things happen as these. A warrant officer with a bad record in battle was ordered to his own regiment as its regimental-sergeant-major, although it was known throughout the regiment that he had only escaped a court-martial because of casualties among the witnesses. An officer reported on by his own regiment as unfit to command a company was sent to another in the same Group with orders that he was to be given another trial as a company commander—despite the fact that his own regiment, which had known and liked him for more than fifteen years, had reluctantly reported on him adversely. Neither of the incidents could have happened under the old dispensation, when a regiment was recognized as the authority on its own people, and its evidence as to their capabilities was accepted.

During the last war, the 2nd Battalion of my regiment, more fortunate than most, managed to keep itself "pure" throughout, despite heavy casualties in Crete, Tobruk and as "Chindits" in Burma. These losses were replaced by direct drafting from home, of men nominated by the Depot from training battalions. That was in war: yet now, in peace, a battalion commander must go through three separate hoops to get one individual private soldier out of Scotland to Germany. A year ago a man wanted for my Intelligence section, because he spoke German and Flemish, was sent instead to another regiment in Hong Kong, despite my having asked for him twice by name: the reason given me was that "there was no theatre demand for him." This was at a time when my own battalion in Germany had just been affiliated to a neighbouring Flemish one. This, although an especially ludicrous case, is just one of many. Our Record Office strives to be helpful, but it is trussed hand and foot by remote and unidentifiable authority.

The graphs of regular recruiting have been growing more depressing year by year. The fall has been arrested and a rise shown as a result of the recent increases in pay. We must realize that unless the scales of pay continue at the same rate as those in other employments we shall eventually be back where we were. In other words, we must not now assume that all our troubles are over because of the pay increases. Nor are the best potential soldiers necessarily attracted by a good rate of pay. Important though it is, the paybook is not the incentive which appeals to the best type of soldier; and if we come to look on pay as being the best incentive of the lot, we shall go wrong. No doubt we should get a lot of recruits if we proclaimed a twelve-hour week, but they would not be the best recruits. The one incentive which is never examined in these days is the restoration of the Regimental System.

A regular on enlistment, and even on re-engagement, has to sign a declaration that he is willing to accept transfer to any corps. At one time we were consoled by an announcement that this rule would be incapable of abuse, in that such transfers would only be made in exceptional circumstances and with the permission of the Army Council. The elation which this seeming triumph called forth for a moment quickly died when it was discovered that transfer within the Group did not count as transfer from corps to corps, a reservation which rendered the undertaking worthless.

Early last year I was ordered to transfer three regular sergeants to another regiment in the Group. I was tempted to send three duds; but in the end I sent

two good ones and one who was mediocre. One of the former immediately refused duty, stayed in his married quarters and refused to come to barracks. He was persuaded in the end to come and see me, and I reasoned with him. He took the line that he had enlisted in the Regiment in the steps of his father, and that he would never have re-engaged if he had realized that he might, in fact, be required to transfer. He was persuaded to go in the end. Within two months he and the other good sergeant had bought themselves out of the Army, leaving the mediocre one in the Army alone of all the three.

What a stimulus for recruiting! If it is said: "Yes, but after all he had signed that he was willing to be transferred at need," then it is my duty to point out that clause specifically and with emphasis to every potential recruit, and to every n.c.o. and man wishing to re-engage. Otherwise I shall have made myself guilty of a confidence trick.

The increase in recruiting which has followed on the new pay code has not been reflected in an increase of extension of service among senior n.c.os. They are still going out of the Army, partly because they have no guarantee that they can stay in their regiment, and partly because of another grievance. On the heels of the Group System has come the new promotion roll, a common seniority roll for all the regiments of the Group. If there is a vacancy for a colour-sergeant, a C.O. cannot as of old promote the senior deserving sergeant of the regiment; the Record Office selects one; and the odds in a Group of six regiments are five to one against his being a man of the same regiment. The Record Office, to be sure, has some discretion, and can juggle a bit between regiment and regiment if so inclined; but the system if rigorously applied gives no loophole, and can change the identity of the sergeants' mess in a few years. Men may find themselves spending three-quarters of their service away from the regiment of their birth or choice; and young officers who have lately joined from Sandhurst tell me that efforts are made there to persuade them that this is now the normal practice.

Before the War, we would march from time to time through the regimental area, and collect enough would-be recruits to enable us to pick and choose among them. To-day that damning clause about liability to transfer makes it dishonest to entice men into the Regiment; yet its cancellation and the restoration of the Regimental System is the one stimulus to recruiting which the authorities refuse even to discuss. Why is this rule sacrosanct from challenge or experiment? If I were allowed for one month to restore the old security and suspend this clause, I would get a hundred men in that month from the regimental area alone, even at this time of full employment.

di

lo fe

01

The same remarks apply to officers. Hitherto the tradition of service among those circles from which officers have been drawn in the past has been strong enough to induce the rising generation to take a chance, in the hopes of better times, and to join the parental regiment. But high water has been reached, and the tide is beginning to turn: I have heard of three young National Service officers in two months who have declined to follow their fathers' profession because of the liability to transfer. I am not sure that they are wrong: for in six months I have had six officers removed from me compulsorily to other units; and of these six, three were born in the Regiment; a fourth is an Australian who asked to join us just after the War, never dreaming of this liability; and a fifth had a brother killed in the Regiment. All these consider themselves, and with reason, victims of a breach of faith.

The nation still pays its officers scantily; it has done so for a long time; but in the past it offered them continuous regimental and community life as compensation for inadequate pay. An officer who elects and is chosen to serve in the Loamshires joins to serve in the Loamshires, and not in the Clayshires, and certainly not just in any regiment of the Heptarchy Group. The point is often made that the Gunners and Navy get on very well and make imperishable history under a system comparable with the Group System. Coming from a regiment which owes so much to both gunners and sailors, and which has been nobly supported by both in many campaigns over many generations, I cannot dissent from that; but I wish I had five pounds for every time that I have heard officers of the Royal Regiment and the Royal Navy lament that they had not something more nearly akin to our Regimental System. I have had a fair amount to do with American infantry, and a great deal more to do with French: both are envious, and incredulous when told that our system is in danger.

At this point, in clubs and places where they argue, the opposition says: "All that you say is very well; but what is your alternative solution in this year of grace?"

Three years ago, General Hakewill-Smith, himself the Colonel of a regiment and a former Director of Organization in the War Office, put up an alternative plan. The basic idea was that drafting should be by battalions instead of by individuals. Let us say that the foreign tour should be stabilized at three years, instead of at six as before the War-a good idea. Of a Group of six regiments, three are normally abroad. "A" Battalion is due home next year, "B" the year after, "C" the year after that; "D" relieves "A," "E" relieves "B," "F" relieves "C." "D," due to go abroad next year, is open to recruiting, and recruits heartily throughout its own and the neighbouring regimental area; and when it sails, it sails 20 per cent. over strength. Thereafter it is closed to recruiting except for men with extraordinary claims upon it. When "A" comes home, having been relieved by "D," it too is closed except for close kin, and is allowed to run down to 60 per cent. or less of its strength. Meanwhile, "E" is gradually building up towards the 120 per cent. of its establishment that it will need to relieve "B" when its turn comes to go abroad, the year after next. Special provision can be made for those men whose time will expire during the foreign tour. (It is odd, incidentally, that the Regimental System, which was never imperilled in the days when trooping was done by means of sailing vessels, should be challenged for the first time when communications are easier and quicker than they have been in the whole history of mankind.)

This scheme, refined and adapted as necessary, would preserve that identity of regiments which we are in danger of losing, and that identification of regiments with districts which has helped not only recruiting but staunchness in the field for so long past. But I am told that it received little or no support in the War Office. A few months before his death Lord Wavell wrote: "A regiment is more than a mere organization; it is in truth a family, with its ancestors and descendants, its pride and its possessions, and through all its vicissitudes a strong sense of community and continuity." Only an infantryman who has absorbed this experience could know what a priceless right is being disposed of, when the dissolution of regiments is being connived at, or encouraged.

An alternative to the Hakewill-Smith plan was used by the Brigade of Guards in Palestine after the recent war. To overcome financial objections to trooping by battalions at that time, complete companies were sent out at regular intervals throughout a year's trooping. When the battalion being relieved had acquired a

majority of companies, including the headquarters company, from the home battalion it assumed the home battalion's number; and thus the changeover was effected in the course of a year or so. This system presupposes either a reversal to two-battalion regiments, or a system of linked battalions, and the Hakewill-Smith plan is greatly preferable; but this at least is better than the Group System.

The profession of arms demands efficiency; its organization cannot afford to fall below the standard of sensible business method. But fighting, the ultimate object of soldiering, demands something more than the methods of Selfridge's or Harrods.

Only infantry officers are qualified to express opinions on this subject. It is probable that many who support the Group System are used to difficult recruiting districts. I am fortunate, in that I belong to a regiment with an ample and willing recruiting area, and have served with it both in peace and in battle, and also in inter-war campaigning; I know what we stand to lose if the Group System becomes permanent. During the last two and a half years I have seen something of the effects of the Group System on those regiments which have not been lucky enough to resist its inroads; there has been a slackening of the regimental bond which will make itself felt, I am sure, in the opening battles of any war into which we may be plunged.

The machinery which runs the human side of the Army has been greatly elaborated since the War. We have now a host of departments which we did not have in 1939—Personnel Selection, and Echelons, a Directorate of Manpower Planning. It is odd, therefore, why the human touch and the value of tradition cannot be made to run side by side with modern requirements, despite the difficulties in certain areas under modern conditions. We do not want beery old recruiting sergeants, with ribbons in their bonnets; we do not want glamorous posters and advertisements in the newspapers and on hoardings. We want young, smart and contented n.c.o.s going on leave and saying that their regiment is the finest on God's earth; join it and grow old in it. Much has been done in various directions for the Army since the War; but the preservation of the Regimental System is basic.

We want infantry which will be happy and contented in peace, and which will go into war under the best auspices with the highest possible self-confidence and esprit de corps. It must consist of officers and men with no feeling that they can be posted here and there as mere "bodies" with orders and numbers attached. They must have the feeling that their pride in their regiment is sympathized with and supported. They must be able to draw inspiration from the continuity of their regiment with their countryside or family or both, and have a close affinity with the men who make up their Territorial battalions. Lastly, they must realize that if, in the exigencies of war, "grouping" comes, it will only be because it is inevitable as a war-time measure.

T

M

fo

AEROPLANES FOR TO-MORROW

By GROUP CAPTAIN G. W. WILLIAMSON, O.B.E., M.C.

HE term "aeroplane for to-morrow" has been applied to the de Havilland Vampire night-fighter, and it is an equally apt style for a high proportion of the aircraft with which free nations are arming themselves against a potential aggressor. They are illustrated and described in yet another milestone of military aviation—" Jane's All the World's Aircraft 1950-51."

One new feature is a list of aircraft flown for the first time during the past year, which includes few military aircraft not mentioned in previous volumes, and the page devoted to aviation records shows that they remain much as they did a year ago. But these records, and some other high water-marks of achievement, indicate a development of military aircraft never before attained in time of peace.

Thus, the Atom-Bomber, Boeing B.56, is a 60-ton swept-wing aircraft which has flown 2,000 miles at an average speed of 607 miles per hour; a standard North American Sabre complete with armament and normal combat equipment has exceeded 670 miles per hour, and three such aircraft flying in company have exceeded 710 miles per hour for a period of 33 minutes; ten American aircraft have exceeded the speed of sound, but a D.H.108 and a Gloster Meteor 8 hold World Speed Records over 100 and 1,000 kilometres respectively, at average speeds of 605 and 511 miles per hour; a Gloster Meteor with Rolls "Avon" engines has climbed 40,000 feet in about four minutes; a Lockheed Neptune has flown 11,000 miles without refuelling, but it is more important that the refuelling of jet-aircraft in flight has become practicable if not commonplace; and Consolidated Vultee's military transport can take 400 fully-armed troops or about 50 tons of vehicles.

The destructive power of aircraft armament has greatly increased; even the smooth and speedy Vampire V is stated to "mount four 20 mm. guns, eight 60-pounder rocket projectiles and two 500 lb. bombs, a more formidable combination of striking power and accuracy than any other close-support weapon yet developed. The full weight of the Vampire's attack exceeds the broadside of a destroyer."

As last year, Jane has a supplement which covers perhaps the most interesting of British aircraft—those which have been "released" since the book went to press. The supplement is dated 15th September, 1950, and includes a picture of a Gloster Meteor 8 developed as a tactical ground-attack fighter in which provision is made for carrying either four 1,000 lb. bombs, sixteen 95 lb. rockets, 580 gallons of fuel in wing tanks and elsewhere, as well as its four 20 mm. guns; or, instead of all this, a number of alternative combinations, including two additional 20 mm. cannon.

The armament of the latest model of the Northrop All-Wing bomber is not stated in this volume, but an earlier type carried the following armament:—

"Two electrically-operated four-gun turrets, one above and one below wing, and four electrically-operated remotely-controlled two-gun turrets, one above and one below each wing; fire control blister towards end of central nacelle."

BRITISH AIRCRAFT AND ENGINES MADE ABROAD

One of the most striking examples of British aircraft built abroad is the C.F.100 all-weather two-seat fighter, built by A. V. Roe, Canada, Limited, powered at present

¹ Jane's All the World's Aircraft, 1950-51, edited by Leonard Bridgman, published by Sampson, Low, Marston & Company Limited, price Three Guineas.

by two Rolls "Avons," but soon to be equipped with two equally powerful Canadian gas-turbines, Avro "Orenda; the same company make a four-jet airliner. Other Canadian companies are Canadian Car and Foundry, who make a transport suitable for wheels or floats; Canadair, who make four-engine airliners; and there are also Cancargo's transport, de Havilland's light transport and Chipmunk trainer, Found Brothers' cabin monoplane, and the tailless glider built by the National Research Council. During the War Canada built 16,000 aircraft, more per head of population than any other of the Free Nations.

There are de Havilland companies in Australia and New Zealand; Government factories have built Lancasters, and are now building Lincolns engined with Australian "Merlins"; while the English Electric Canberra with Australian-built Rolls "Tay" or "Avon" engines will follow. Commonwealth Aircraft Corporation is building "Nene," "Tay" and "Merlin," with several types of aircraft; the de Havilland subsidiary is building the ubiquitous Vampire; Fairey-Clyde is repairing and overhauling at present, but can undertake manufacture.

Rolls "Nene" and "Derwent" are almost as ubiquitous as Vampire; 55 of them, alas, even went to Russia. However, it is rather a compliment to Rolls engineering to have their fine engines made under licence by one of the greatest of American companies, Pratt and Whitney, whose Turbo-Wasp models JT-6 and JT-7 correspond to Rolls "Nene" and "Tay." In Europe, the Hispano-Suiza version of the "Nene" powers almost every fast fighter.

The de Havilland Vampires are being built in Europe by France, Italy, Sweden and Switzerland; Sweden also builds the "Goblin" engine. In addition to countries already mentioned, Vampire is used by Egypt, India, Norway, South Africa and Venezuela.

+1

a

(0

su

as

m

re

is

Bo

ab

OPERATIONAL CHARACTERISTICS OF JET FIGHTERS

With a multiplicity of fast fighters, it would perhaps be as well to consider first the slower ones, if anything capable of 600 miles an hour could be styled slow. These aircraft are none-the-less formidable because they are two-seaters, weigh a good deal more, are of wider span, and long in the nose. In this Country we call them night-fighters, but in America they are becoming a definite type, and are more correctly styled all-weather fighters.

The all-weather fighter has the same requirements in order to locate an enemy, whether it is a dark night or in cloud or mist at high noon; or at 60,000 feet with the pitch-black sky above where, even in daylight, there are no particles of dust or moisture to make the light visible. High altitude day-fighters will presumably be painted black.

Those requirements are: electronics or radar of various kinds; a long nose or some other place in which to house the scanner and other parts; a radar operator and a place for him to sit and scan; and either increased span to give increased wing area to carry the extra weight, or greater engine power, usually the former.

From American sources, it is known that modern radar may weigh as much as 3,000 pounds, and includes, in Lockheed Shooting Star, "ground communication of intelligence, so that the pilot can be directed to the enemy by the ground controller; the pilot's own screen, additional to that of the radar operator; gun-laying equipment with firing automatically opened and controlled; a radar tail warning, which might be combined with a tail gun; identification; radio altimeter; beacon and beam receivers; and two-way radio for ground-controlled approach."

Shooting Star and our own Venom, span 38 ft., carries about 7,000 horsepower; Avro-Canada C.F.100 has about 20,000, with a span of 52 ft.; Northrop Scorpion about 14,000 horsepower with a span of 55 ft. Not mentioned in *Jane*, but recently visible in flight at Farnborough, is Gloster Meteor N.F.11, the night-fighter variant built by Armstrong-Siddeley, with two "Derwents"—having about 10,000 horsepower and a speed of 550 miles per hour.

In theory, aircraft cannot be capable of very high speeds and also highly manœuvrable at altitude. High speed is attained by aircraft with swept-back or delta wings, providing the smallest possible span and an increased tendency to stall at altitude; on the other hand, rapid climb and good handling qualities at 50,000 feet may necessitate low span-loading, a fairly wide span in proportion to all-up weight. However, two British aircraft have it both ways—the Ghost-Vampire or Venom, and Gloster Meteor with Rolls "Avons" or Armstrong-Siddeley "Sapphires," the engine at one time built by Metropolitan-Vickers. In the supplement to Jane, the thrust of this new engine is stated to be 7,200 pounds, at which the engine has run 150 hours type test. This corresponds, at 650 miles per hour, to 12,000 horsepower each or 24,000 total for what is undoubtedly "the most powerful single-seat fighter in the World." The illustration clearly shows the long nose of the night fighter version compared with the Sapphire-Meteor on the same page of the supplement.

Hawker P.1081 and Supermarine S.535 are beautiful aircraft with wings and other surfaces swept well back: like most of the American single-seaters, they give the impression of being capable of high speed rather than being manœuvrable at altitude.

Fighter armament in this Country remains in general at four 20 mm. guns; in the United States only one fighter, McDonnell Voodoo, has heavier armament—six of these cannons; and one French fighter, the Sud-Ouest Espadon or Swordfish has the same. Another fine French fighter is Dassault Ouragan or Hurricane; both these French aircraft have the Hispano "Nene" engine.

JET BOMBERS

Though some of the jet bombers were mentioned in this JOURNAL a year ago, there are so few that it would be fair to list again those which are likely to remain unrivalled for some time to come, in approximate order of size. Consolidated Vultee (or Convair) B.36.D. has been built for long range, and still has piston-engines supplemented by jets: it spans 230 ft., weighs 160 tons, has a maximum range of 10,000 miles, and a maximum speed of 350 miles per hour. Northrop YB.49 is all-jet as well as all-wing, spans 172 ft., weighs 100 tons, has 64,000 horsepower and makes more than 500 miles per hour. Boeing B.47, the Atom Bomber, has been previously referred to, 116 ft. span, 63 tons weight, and 48,000 horsepower. New in this Volume is Martin XB.48 which, with a span of 108 ft., has about the same horsepower as the Boeing.

Light bombers include English Electric Canberra, with two Rolls "Avons," about 21,000 horsepower, and a span of 64 feet; also Martin XB.51, stated to have a speed in excess of 600 miles an hour.

DEVELOPMENTS IN NAVAL AIRCRAFT

Except in quantity production, there has been no great advance in either fighters or strike fighters for use with the Fleet. But both in this Country and in the

² See "Milestones of Military Aviation" in the JOURNAL of November, 1949, p.637.

United States there has been a concentration upon types of aircraft suitable for anti-submarine work, especially where a submarine may be submerged and using the Schnorkel. In these aircraft, the use of propeller-turbines has a great weight-advantage as compared with piston engines, without the increased fuel consumption of the all-jet engine.

The most interesting of the new British aircraft is the Short anti-submarine monoplane, powered with two Armstrong-Siddeley "Mamba" propeller-turbines; as with the night-fighters, there is a large radar installation, and this is probably housed in the pendulous nose something like the trunk of an elephant. It is developed, with considerable modifications, from the Short Sturgeon, itself a high-performance aircraft even when powered with two "Merlins" totalling 3,320 horsepower for takeoff. Sturgeon was capable of 366 miles per hour with "Merlins"; but, including the jet effect, the "Mambas" with much less weight will be slightly more powerful. Fairey 17, also for anti-submarine work, has the "Double Mamba," with contra-rotating propellers; either can be stopped and restarted in flight, which makes for very economical cruising. The Blackburn YA.5 anti-submarine monoplane with Rolls "Griffon" engine is illustrated in the supplement but since then, Blackburn YB.I, which has the Armstrong-Siddeley "Double Mamba" like the Fairey 17, has been seen at Farnborough. Of the latter aircraft it is stated that "sonobuoys" can be carried under the wings: a pattern of these buoys, laid on the surface of the sea, may give a radio indication of the presence and location of enemy submarines.

The radar equipment of anti-submarine aircraft takes up a good deal of space: and, though it is in the nose of the Short and Harland SB.3, it is in a mechanically-lowered "dustbin type" radome in Fairey 17, and is probably the same (judging from the illustration) in Blackburn YB.1. A novel location for the radome is shown on page 214c, where Chance-Vought Navy night fighter carries it on the starboard wing, like a bomb.

In this Country, we have been much in advance of the United States on the development of propeller-turbines; though they possess the biggest, in the 10,000 horsepower Turbodyne. So the latest Navy strike fighter, of which no detaile are given, is stated to be "the first U.S. post-war tactical aeroplane to be powered with a turboprop engine. The Douglas Skyshark can carry a greater war load than any known jet-fighter or bomber for the same expenditure of fuel." The engine is the "Allison" T.40, two T.38 engines coupled together like our "Double Mamba." It weighs 2,500 pounds for 5,500 horsepower, and is remarkable in that this creditable weight includes the extension of propeller shaft and reduction gear coupling the two engines. It looks as though the pilot will sit between the engine and its reduction gear.

ai

ai

m

aı

is

fo

D

This volume gives further information about the Hawker family of single-seat Navy fighters: P.1040 was the prototype of the carrier-borne jet-fighter Sea Hawk, with wings tapered and folding, but not swept back. P.1052 uses many components of Sea Hawk, but has backward swept wings; this is the research aircraft which in May, 1949, flew from London to Paris, in unfavourable weather, at an average speed of 618 m.p.h. P.1081 was flown at Farnborough, and is the production version of P.1052, rather like a Sea Hawk with swept-back wings, intended for manufacture at the Australian Government factory at Fishermen's Bend, Melbourne. It must be said that these graceful jet-fighters are much better looking than their American counterparts.

Not much information is given about the Chance-Vought Cutlass, except that it is tailless, will do more than 600 miles an hour, and has two "Westinghouse" engines totalling 6,000 pounds thrust, a total of 10,000 horsepower or half that of Meteor.

The Grumman Panther single-seat jet fighter for the Navy has excellent lines, and is powered by the Pratt and Whitney J.48, based on Rolls-Royce "Nene," with an afterburner. But without afterburning, this great engine develops 6,250 pounds of thrust or 10,000 horsepower. The most interesting Grumman development is, however, their two aircraft intended to be used as a pair, a submarine-searcher and a submarine killer. This is the Grumman G.82 Guardian: one carries the bulky electronic devices, and the other guns and bombs. The pair are shown on page 238c, with the searcher in the foreground.

PROPELLERS FOR TO-MORROW

Though Jane does not point it out, the illustration of Douglas Skyshark on page 225c is in one way the most up-to-date in the book, as it shows what to-morrow's propellers will look like: sharp and thin as a knife, perfectly rectangular with a squared-off end. This is possibly one of the first illustrations in a British journal to show the result of five years' research into propellers to operate at 600 miles an hour at sea level with an efficiency of 80 per cent. which Hamilton Standard, a subsidiary of United Aircraft, now say they can attain with the square end. Swept-back propellers were tried, looking rather like bananas or boomerangs; but the one illustrated, uncompromisingly square, was by far the best.

United Aircraft includes Pratt and Whitney, Chance Vought, Hamilton Standard Propellers, and Sikorsky Helicopters; so there are plenty of brains and money behind a wind-tunnel research which may prove to be a turning point in the design of aircraft other than those intended to fly at high altitude. The contra-rotating propeller, when reversed, may reduce landing run by more than 50 per cent.; when driven by twin turbines, one turbine may be run at full efficiency when cruising, with the other stopped and the propeller feathered or locked by a brake. The fuel used by a turbo-prop at cruising speed is about 40 per cent. less than that of the pure jet cruising at medium altitude, or perhaps 20 per cent. on a miles per gallon basis.

RUSSIAN ENGINES AND AIRCRAFT

One of the features of Jane over many years has been its proved accuracy, and over many years the report on Russian developments has consisted chiefly of aircraft and engines copied from those of other Countries, often using the original mark, number or name. "I left him," says Kipling, "sweating and copying, a year and a half behind": but one of the Russian designs is about thirteen years old: it is the tail-first Utka, or Duck, copied from the Focke-Wulf Ente, or Duck first flown about 1937 There is also the Boeing B.29 copy of the 1940 specification; a four-engine jet bomber designed by Ilyushin, who had previously copied the Douglas DC.2; and a two-jet bomber by Tupolev, who copied the B.29. The Yakovlev jet fighter is "similar in appearance and layout to the Republic Thunderjet." This fighter seems to be engined by one of the 55 Rolls "Nenes" and "Derwents" supplied to Russia from this Country, rather to the dismay of the Americans; another Yakovlev fighter has a copy of the Junkers "Jumo" engine.

No Russian turbines are described or illustrated, but copies of German turbines have been made in quantity. As regards piston engines the following is a quotation from an early paragraph on page 62d:

"Present Russian engines can be classified in six categories. The series developed from Hispano, those from the Wright "Cyclone," the German B.M.W., the Gnome-Rhone of 1935, the Pratt and Whitney "Twin-Wasp," and the Wright Duplex "Cyclone."

Aircraft and engines made in Russia are covered by 16 pages of this volume, as compared with a total of 234 for Great Britain, the Dominions, and the United States.

VICTORY DEPENDS ON AIR TRANSPORT

Aero Digest quotes Mr. Winston Churchill as saying something like this: "Victory is the bright flower towards which we all strive: transport is the sturdy stem on which it stands." This volume of Jane shows that the democracies appreciate this truth: naval and military transports are being built by at least a dozen of the greatest aviation firms in the World: Bristol, Blackburn, Vickers, Breguet and Nord, Boeing, Chase, Convair, Douglas, Fairchild, Lockheed, Northrop. In all of them freight comes first, vehicles, guns, bulldozers, tanks, military stores in packs or paracans; troops with full equipment, or walking wounded, sit on tip-up seats, but there are attachments for stretchers, numbering 300 in Convair C.99, their occupants delivered straight from Europe to home. To-morrow's transport, then, is suited for troops, paratroops, wounded, delivery of vehicles or other equipment, or supply dropping. The aircraft are equipped with electric hoists, overhead runways, roller conveyors, ramps at one or both ends, and electrically-operated hatches. Fairchild C.120 has a detachable pack which will hold nine tons of freight; or, as a medical unit, complete with 36 stretchers and three attendants capable of being dropped. The Lockheed Constellation also has a Speedpak, fitting fuselage contour, raised and lowered by electric hoist, with a stowage of 8,200 pounds payload.

The far-sighted editor of Aero Digest gives us, in the number for July 1950, a glimpse of war-time aids and amenities much beyond those of our experience in wars gone by; he calls the pack or pannier a "pod":

"There can be a Headquarters pod, flown in and ready to operate immediately; a control tower, radar and communications set-up ready for use a few minutes after landing on an airstrip; a fully-equipped hospital, commissary or kitchen; machine shop; lighting and power plant; water-purification system; refuelling system and separate pods of fuel; or a photo-intelligence unit... In Arctic regions, an insulated pod with integral heating, "a fur-lined foxhole.!"

He makes the excellent point that it is not enough to design aircraft specially for cargo; items of cargo must be specially designed, in shape, size and weight, to be suitable for the aircraft that will carry them.

Any staff officer concerned with transportation of this type should see also the variety of applications of modern helicopters; and glance at Boeing's L.15a, not only an aerial observation post but the most versatile of air-taxis which belongs, apparently, to the Army and not the Air Force; it has an arrestor hook and "can take off from a dollar bill"—this statement is not in Jane!

MILESTONE

The book is better than ever, peppered with dramatic little paragraphs which show that things are moving. Airships, useful in certain circumstances for antisubmarine work, are back again.

SOME NAVAL ASPECTS OF AN ASSAULT LANDING

By LIEUTENANT-COMMANDER R. STANBURY, R.N.

Fall the types of operation carried out by the Allies' Armed Forces in the last war it is probably safe to say that the Assault Landings must take pride of place for the quantity of experience that had necessarily to be gained the hard way. For in this marriage of the three Services, as in all marriages, the risks and pitfalls could never be entirely foreseen and safeguarded; thus, although planning and forethought were essential before the operation, initiative and enterprise were the prime factors at all levels once the assault itself was launched. This was all the more true when, as so often happened, the assault had necessarily to be mounted in a hurry.

At first the Navy's part in such an assault may seem comparatively simple—a matter of ferrying troops and equipment between the convoy, some three or four miles offshore, and the beaches, whose defences are usually adequately occupied by our own air and sea bombardments. Yet, even in ideal weather conditions by day, and with the assault running to schedule, both the naval planning necessary to ensure the safe and timely arrival of troops and supplies on the beach, and the seamanship involved in this operation, are intricate tasks for those concerned. Many and varied problems are presented to all ranks and ratings from the Naval Force Commander down to the crew of the smallest landing craft. In rough weather, or when faced with an unforeseen emergency, the need for seamanship, in the widest sense of the word, is great indeed.

The first problem is the composition of the Naval Force. This will depend largely on the length of the sea-passage involved, but also on the intelligence regarding the beaches to be used—without which it would be foolhardy even to attempt a landing. Prevention is better than cure, and beach reconnaissance must play a considerable part, not only in the choice of landing-craft or amphibious vehicles for the first waves of the assault, but also in the method and time of the initial landings.

The value of the accurate preliminary reconnaissance of the assault-beaches was shown time and again in the last war. At Tarawa¹, where no reconnaissance of the approaches to the beach had been made, the American Marines paid heavily when their craft grounded on an uncharted coral reef a considerable distance offshore. At Salerno, on the other hand, where it was desired to use L.S.T.² for the long sea passage, reconnaissance confirmed that these craft could clear a sandbank some two hundred yards off-shore under certain conditions of draught and handling.

The Navy can rarely achieve more than a compromise on the craft and the methods of assault it would best like to employ. This must needs be so, as it is the Army requirements which primarily condition the selection of the assault-beaches, the number and types of troops and vehicles in the first waves of the assault, and many other factors. It can readily be seen, therefore, that each assault must impose a fresh set of circumstances on the Navy, and these circumstances can only be met by the crews of the landing-craft through a display of seamanship.

For a long sea passage, such as is common in the Pacific, the smaller landing-craft are normally slung at the davits, or transported on the decks, of the larger vessels—the L.S.I.³ and L.S.T. On the arrival of the convoy in the "lowering position"

¹ See "Battle of the Pacific," Part 1, in the Journal for August, 1950, p. 454-5.

³ L.S.T. Landing Ship (Tank) ³ L.S.I. Landing Ship (Infantry)

these smaller craft are lowered into the water alongside their parent ships, and it is here that the real need for seamanship begins. The parent ship may be rolling in a heavy swell, making the lowering and slipping of the landing-craft an extremely difficult procedure. Intelligent use of steadying-lines fore and aft can greatly assist; and, once the craft is in the water, the quick embarkation of the troops is immensely facilitated if all their officers and other ranks have an exact knowledge of the layout of the craft and the position in it which they must occupy. Above all they must in no way interfere with the work of the crew. Practice makes perfect, and this is a case where nothing short of perfection will do.

Once clear of the parent-ship's side the landing-craft are collected, either by their flotilla-leader or a special navigational motor-launch, and the journey to the beach begins. Here again constant practice and the training of the landing-craft crews in signals and manceuvring are essential.

The ferrying of small stores, such as ammunition and petrol, to the beach is best accomplished by D.U.K.W's, though it is doubtful if these could be used early on in the assault. However, they are versatile machines and have been successfully launched from L.C.T.4 and L.S.T. They have proved themselves in the past again and again, and are perhaps the best—if not the only—answer to a dry-shod landing over mud or soft sand. Another great advantage of these amphibious vehicles is that they can drive straight to the dumps inland, thereby saving time and manpower in offloading landing-craft on the beaches and subsequently transferring the supplies to the dumps by lorry. In any case, a prime requisite is to keep the beaches and exits clear of congestion. Further time can be saved if small stores are lowered into the "hold" of the D.U.K.W. in specially pre-loaded slings, which can be quickly disengaged in situ.

The loading of the larger landing-craft with vehicles from the M.T. ships is a specialized operation, and it is not intended to discuss it here beyond mentioning the question of the "marrying-up" of the drivers with their vehicles. It is not always practicable, particularly on a long sea passage, for the two to travel together, as neither M.T. ships nor L.S.T. are fitted for carrying many passengers over long distances. This is, however, more a question of convoy and beach organization, and is only mentioned in passing as being one of the many minor problems which can have serious repercussions if not properly organized and watched. Liaison between the combined Army/Navy team ashore and the ships in the anchorage must be of the strongest. Furthermore, in designing new armoured vehicles and weapons, the question of stowage in, and unloading from, L.C.T. and L.S.T. must be borne in mind.

Volumes could be written on the different types of beaches that have been used for assault landings. Each one has called for a different technique. But the problem from the naval point of view resolves itself into the means for landing the troops and vehicles in the first waves without "drowning" them; for maintaining them over the beaches at all states of the tide; and for preventing the stranding of landing-craft. It is here that accurate intelligence about the beaches is invaluable, and the Navy must make full use of it, as no amount of seamanship will help a landing-craft to overcome an offshore bar or a flat beach. Army requirements must be carefully balanced against those of the Navy, and only a detailed reconnaissance will enable this to be done.

L.C.T. Landing Craft (Tank).

In the Autumn of 1942, I was given the task of organizing and commencing the training of the Beach-Pilotage School on the West coast of Scotland. The difficulties of finding a small section of a particular beach in the dark were soon brought home to me very forcibly! The smaller the type of craft the fewer and less accurate are its aids to navigation, and there is no more helpless feeling than that of being lost on a dark night in the vicinity of rocks and reefs. In the past landing-craft have been lost or delayed due to faulty navigation, and valuable men and material have arrived too late to play their part in an operation. Confidence in ability to navigate, coupled with an exact knowledge of the capabilities of the craft, are only gained by constant practice; they are perhaps the most important aspect of seamanship in an assault landing.

Even in the best regulated families, however, accidents do from time to time occur. A frequent problem with the smaller landing-craft is that of towing. And here a word of warning; the engines of minor landing-craft are not designed to take unaccustomed strains, and great damage can result from attempting to tow too heavy a load. If the craft to be towed cannot be offloaded then one of the larger types of landing-craft should be employed for towing. With an empty or lightly loaded minor landing-craft it is probably more convenient to secure her alongside the towing craft if it is similar in size and shape, and if the sea is calm. In heavy weather, landing-craft with their square bows and light draft tow more easily astern with tow ropes crossed (or a figure-of-eight with one tow-rope only), and if a fairly short tow is employed.

The method of getting a landing-craft off a sand-bank, or clear of an underwater obstruction on which she has stuck, must depend very largely on circumstances—particularly the point of grounding of the craft. Altering the distribution of weight in the vessel, and hence the trim, might do the trick; rocking the boat from side to side can often move a landing-craft from a small obstruction; use of propellers, however, should be avoided if possible, especially if the craft is grounded by the stern. Where the bottom is rocky the blades are almost certain to get bent or broken, or else weed will become entangled in them; on sand-banks the effect is to build up a ridge astern of the craft which further obstructs its clearance. Near the beach a Miller's Crane⁵ and a D.6 tractor can be employed for minor landing-craft, or a towrope from a heavier craft in deeper water may prove effective.

Whatever the circumstances and the nature of the obstruction, however, a knowledge of the tidal data for the area is essential for the coxswain of the craft. With a rising tide the craft will probably clear herself without the adoption of methods which might prove injurious even if successful. Even with a falling tide it may be more prudent to wait for the tide to turn and rise again. Only if the sea is rough or if the weather is deteriorating does the need for clearing the craft become imperative.

The actual beaching of the craft should present few difficulties in calm weather, as she should come clear of the beach with the lightening of her load; indeed beachlines may be necessary to hold her nose in to the shore, should there be a cross wind or tide. With a heavy sea running a stern anchor is essential, or the craft will broach-to parallel to the beach—about the most helpless position possible. A stern anchor should also be used by a stranded craft which is waiting for a rising tide, as otherwise she will merely be pushed further up the beach by the incoming waves.

⁵ A Miller's crane has tracks to enable it to be used on beaches, and was specially designed for lifting minor landing craft. It is not self-propelled.

In heavy weather, and on a coast where there is little shelter, minor landing-craft are prone to drag their anchors. Rather than equip the craft with an anchor which is out of all proportion to its size, the solution would seem to be to moor-up the smaller vessels astern of such larger craft as are in the anchorage or, where possible, to hoist them at the davits. The practicability of laying moorings for the minor landing-craft might also repay investigation. Failing all else the craft might be beached and moved out of harm's way by the Miller's Crane.

Events in Korea in the past few months have again proved the importance of amphibious operations in modern warfare. Moreover there is hardly one of the danger-spots in the World to-day where the judicious exercising of sea-power, and the mounting of seaborne assaults in the enemy's rear, would not play a vital if not decisive role in the strategy of the United Nations. It has been my aim in the foregoing remarks to bring home the essentials of the naval side of an assault landing: good intelligence, good planning, and good seamanship. If these are combined with a proper appreciation by the sister-Services of the particular problems besetting the Navy—particularly in the initial stages of the assault—the risks attendant on an operation of this nature can be more easily foreseen, and preventive action taken.

made and to state of the state

The second second and the second second

and the second of the second o

AN ARMY ON THE CHEAP.

By BRIGADIER-GENERAL SIR JAMES EDMONDS, Kt., C.B., C.M.G.

T regular intervals between the years 1871 and 1914, a question was asked in the House of Commons: "what is the cost of a German soldier compared with that of a British soldier." The answer elicited was always much the same: that the annual cost of the German was roughly about half that of the British, which was put at around £150 per annum.

No attempt was made in the Estimates of either Country to conceal the cost of their Army, but there was a difference in accounting: the British War Office had to return to the Treasury any unexpended balance at the end of the financial year; the German war minister, having received the total budget voted in detail by the Reichstag, could expend it as he thought fit and in any case kept any balance. The German army savings went into a secret fund, known as die schwarze Kasse (black chest) for emergency expenditure. The German expedition to China in the Boxer troubles of 1900 was financed by this fund, without resort to the Reichstag.

When, in 1871, the German Empire was created, the amount to be contributed to the cost of the Army by the various States was fixed at the equivalent of £33 15s. per head of the strength of the various contingents. By 1914, the cost per head had risen with the cost of living and the necessity for up-to-date equipment, to more than double—£82 6s.—but the wealth of the *Reich* had increased far more.

In 1911, the strength of the German Army was 491,462, and its cost, including non-recurrent expenditure, was £51,511,000; in 1914 the peace strength was 630,200, and the estimated cost £78,357,000. For the British in the year 1912–13 the Estimates were: strength, 186,000; cost, £27,860,000, and in the four previous years it was much the same. This works out to £104 per man for the Teuton and £150 for the Briton; but in the years immediately before 1914, Germany was spending large sums on motor transport, heavy guns and in raising new divisions, which the British were not doing.

The circumstances of the two Armies were very different. Germany possessed a huge force raised by compulsion, and it served only at home. The Schittztruppen (Protectorate Troops) who garrisoned the German Colonies were paid for by the Colonial Office. The British Army was recruited by voluntary enlistment, although Field-Marshal Sir William Robertson¹ said on one occasion "Compulsory service! We have always had compulsory service: the compulsion of hunger." Also more than half the units of the British Army were abroad: in India (paid for by India), Egypt and the Colonial garrisons, though no longer in the Dominions; so that a young man who joined up still had some chance of seeing the World—but no promise of employment after his service.

No doubt, we shall soon come to having two armies: one, conscript, for training; the other voluntary, for service abroad in peace-time, augmented in times of minor emergency for service in Egypt, Malaya, Hong Kong, etc., by the volunteering—at Union rates of pay—of trained conscripts.

Now let us examine the methods by which the Germans kept down the cost of their conscript army. These appear to have been:—

(I) Low rates of pay for both officers and other ranks, compensated for by many and great advantages which cost little.

Author of From Private to Field-Marshal.

- (2) Civil Service employment being guaranteed to n.c.o's after 12 years' service, and to officers after 10 years, if unfit for further active duty.
 - (3) A consequent smaller pension list.
- (4) Paying from other Votes for certain items which in Great Britain usually fall on the Army Vote.
 - (5) Inferior barrack, mess and married quarters accommodation.
- (6) Economy at every turn. At musketry practice a soldier had to fire five rounds at each range, but if he hit the target with three, the other two were taken from him and he went to the next range.
- (7) Unnecessary moves being avoided. No "grand chain" took place every Autumn as with us. I dined in Stettin with a regiment which was celebrating the 250th anniversary of its stay there.

The matter can conveniently be considered under four headings: rank and file, n.c.o's, officers and reserve officers.

THE PRIVATE SOLDIER

Little need be said about the private soldier; he was a conscripted man who received no more pay—all arms the same—than 10s. 6d. a month. His free ration in normal circumstances was only $\frac{3}{4}$ kilo. (26 $\frac{1}{2}$ oz.) of brown bread, and for the cost of providing some flavouring at breakfast and dinner a money allowance of 2d. a day was authorized. This, plus 1 $\frac{1}{2}$ d. a day deducted from the slender pay, provided coffee in the morning and stew about 2.30 p.m. when the troops came in from training. It used to be said that unless a soldier received help from his family, or had a schatz (sweetheart), he fared badly. The British soldier at home received in those days 1s. per day less 3d. for groceries, but a ration of $\frac{3}{4}$ lb. meat and 1 lb. bread.

Accommodation in barracks was the very minimum, the iron beds often being in tiers three storeys high. As the barracks were invariably in towns, not erected in the middle of deserts like Aldershot (originally), Shorncliffe, Salisbury Plain and Catterick,* it was unnecessary to provide canteens and recreation rooms or playing fields; for that matter the German recruit had no time for play. No recognition was given to married privates.

As a rule, new barracks cost the Ministry of War nothing at all. When the peace strength of the Army rose and it became necessary to provide more accommodation, municipalities of suitable towns were asked if they would give the land and build the barracks if a regiment was stationed in their town, and they gladly complied; for a regiment brought a great deal of money into a place.

Non-Commissioned Officers

To train the large number of recruits called up annually, 250,000 and more, a skilled body of instructors, n.c.o's and officers, was required. It was more difficult to persuade men to stay on after their two or three years' obligatory service than to obtain officers, and no less than 110,000 n.c.o's were required in peace-time, even in 1888. Suitable men were asked to contract to complete 12 years' service. A segment-major in the mounted branches received £3 is. 6d. per month, in the infantry, £3 (British, 5s. a day); a sergeant £1 17s. 6d. or £1 16s. (British, 2s. 4d. a day). The Guard got a trifle more. Full lodging allowance was given. The attraction offered

² Its real name was "Ad Fines"—the end of everywhere.

was that Kapitulanten (those who contracted to serve) were guaranteed by certificate, and had a legal right to civil service employment in State, provincial, municipal and parish services. This cost the State nothing and saved pensions. The Ministry of War periodically published a book "Anstellungsnachrichten" (information regarding civil appointments) which gave classified lists of appointments open to "Inhaber des Anstellungsschein" (holders of appointment certificate). These appointments were subdivided as follows:—

- (1) Exclusively reserved for ex-n.c.o's.
- (2) Preferentially entirely (sic) reserved.
- (3) Preferentially partly reserved (usually about half).
- (4) Partly open, that is the candidates competed on equal terms with civilians.

The lists were further classified under: Reich services, Prussian and other State services, provincial services, etc., service in Alsace-Lorraine and in the numerous princedoms, dukedoms and free cities.

The detailed list filled a 300-page book, and included not only railways, canals, police, post office, frontier and prison guards and fire brigades, all of which were full of ex-soldiers, but every Ministry except the Foreign Office, and such odd things as ship measurement, statistical office, afforestation, public health, patent office, inspection of insurance companies, lotteries, banks, the mint, registries of births, deaths and marriages, administrative posts in schools, colleges, orphanages, museums, national galleries, libraries, meteorological stations, survey and academies of art.

Schools (The Military Orphanage and Military Boys Education Institutes) were maintained from army funds for the sons of n.c.o's, at which they were educated until they were of age to enter the Army.

OFFICERS

Regarding officers: Germany effected economies on pay by having battalions commanded by majors and regiments of three battalions (our brigade) by lieut.-colonels and colonels. The pay offered was certainly not excessive, even compared with ours which, thirty years ago, did not pretend to be a living wage, and barely settled the mess bill in the junior ranks. The annual pay (it was on a monthly basis, but is multiplied up for easier comparison) was: Field-Marshal (unemployed) £600; Major-General, £450; Major, £270; Captain 1st Class (our major), £180; Second Lieutenant, £60. Our rates were £1,300, £1,500, £390, £247 and £95. In addition, the German officer received command and staff pay, not very much, per annum—a divisional commander £225; an adjutant, £10 16s.; an instructor in a war school, £22. They all received lodging allowance according to garrison; but even in Berlin, a divisional commander received only £75 and a lieutenant £21 per annum. For each horse £75 was allowed every fifth year. It was said in the 'nineties that the minimum allowance required in the infantry was £27 per annum.

A naturalized German of my aquaintance put his son into a good German cavalry regiment because, he said, on the same allowance he would have a better time than he could in a British line infantry regiment.

The social position of the officer was very high, and many of them looked out for rich marriages; but it was counted contrary to "honour" to advertise in the "Matrimonial Gazettel"

The German Army required about 30,000 Regular officers in peace-time, mostly of the junior ranks and, in order to avoid stagnation and to ensure a flow out of the Army of the physically unfit and professionally unsuitable without occasioning a scare and discouraging entry, retirement could be taken after ten years' service on a pension equal to 15/60th of pay and allowances; for every year of service after the tenth, the pension increased by 1/60th up to a maximum of 45/60ths.

Exactly the same arrangements as for the n.c.o's were made to reserve a large number of civil appointments for retired officers—in fact the book containing the lists had more pages than the non-commissioned volume. Young gentlemen of high attainments were attracted into military service; for instead of the Army being a dead end in peace-time, it was the road to the highest offices of State, even the Chancellorship (held by General von Caprivi); the Ministers of War and Transport were always soldiers, and many other well-paid civil appointments were usually held by them. In fact, it was said that instead of the *Reich* having an Army, the Army had a *Reich*.

Financially, officer service was made easy by an unwritten classification of regiments according to price, that is, the cost of living in them. Before accepting a candidate for a commission a regimental commander would enquire of the father what allowance he was prepared to give his son: if it were above the regimental average he was advised to take the boy elsewhere—to a suitable cavalry regiment, perhaps to the "Golden Brigade" if a millionaire, but to an infantry regiment in a small garrison on the frontier if impoverished.

d

b

m

ar

of

as

It was recognized that young officers might get into debt, and to prevent them from falling into the hands of money lenders, and by their aid into the clutches of master spies—about 1890 it was discovered that Germany was getting hold of French officers in this way—every regiment had a fund (officer's assistance fund) from which loans could be made. The Russians had a similar arrangement.

The cost of living was low in the majority of regiments; only a few of the most affluent had messes as we understand them—encouraged thereto by the Kaiser. Most had no more than a kasino, a kind of café, lecture hall and dancing floor combined. In 1899, an officer in a Guards infantry regiment in Potsdam told me that breakfast and luncheon cost him 3d. each, dinner is. 2d.; that his monthly subscriptions were mess 3s., music is. 6d., library 4d., assistance fund is., life insurance is., total 6s. iod.; and that he paid his soldier servant 5s. There were seldom as many as four officers' quarters, and those only in new barracks for juniors on duty. Thus the expense of single and married officers' quarters was saved. Even horses were kept in hired stables.

The officers, as a rule, fed either at home or as regular guests at some restaurant or hotel—at special rates, of course. It might be noted that the Army was so powerful that the tradespeople of a garrison town—and most towns had barracks—were in the hands of the officers, and not vice versa. In one instance, of which I know, the tailors put up prices and the regiment, after giving a warning, had its best uniforms made in Switzerland. The uniform consisted of tunic for parade, frock coat for walking out, and "blouse" or loose jacket, for indoors; no "mess dress," no gold lace. A tunic cost £3 6s. 9d., trousers £1 2s., and cap 4s. 6d.—when I joined at Chatham 20 years earlier the prices my father paid were £10 5s., £2 2s. and 35s. respectively.

As a check on prices, outfit and equipment of all kinds, from shirts and collars to revolvers and field glasses, could be obtained from Government subsidized "Co-Ops," called Army and Navy Warehouses. Uniforms for ordinary occasions could

be bought from the military clothing factories, which in each army corps district manufactured the uniform of the rank and file.

Officers had other privileges which cost the Country little or nothing, such as cheap railway fares—without a warrant—and a certain number of free seats, usually the front row of the stalls, at the State Opera Houses and theatres. Their sons were educated and clothed from the age of ten, at the "Cadet houses" and the Cadet School, for a nominal sum—from nothing to £37 per annum.

Reserve officers, on whom the Army depended to fill vacancies on mobilization, were obtained for practically nothing, in fact they had to pay for their training. The majority of them entered the Service as *Einjährigefreiwillige* (one year volunteers); that is, being in possession of a certain educational certificate and paying their own expenses, including uniform, they spent only one year instead of two or three in the ranks, passed the officers' examination and were called up for occasional refresher courses. In the better classes it was hardly respectable not to be a reserve officer; most of the greatest German civilians, from Bismarck (a reserve major of cuirassiers) downwards, were in the reserve and wore uniform on ceremonial occasions.

After the defeat of 1918, with the subsequent abolition of conscription and the institution of a volunteer army of 100,000 officers and men, the estimates in 1928 amounted to £25,580,000, so that the cost per head was £250, and the average pay of the soldier had risen from £4 17s. per annum in 1911-14 to £67 10s. in 1924-9; but the officer's pay had been increased by no more than 25 to 30 per cent.

That the German was, and probably still is, prepared to accept such small pay for military service is no doubt also partly due to his nature: he loves parades, processions and brass bands; and the civilian, man and woman, has the greatest respect for uniform and all it stands for.

In this era of total warfare and uncertainty, a nation, to defend itself successfully, must call upon all its men and women of suitable age, and must ensure by careful allotment and training that they are ready to take their places when an emergency arises. The days of small professional armies seem to be over, except perhaps in times of real peace when Overseas Service could be left to specially enlisted volunteers, as was once the case in Germany.

large Gerkert repulation uncestions or matrice to retain to their touries, as well an

NEPAL

By COLONEL R. G. LEONARD, O.B.E.

EVENTS in Nepal, the home of the Gurkha, have been prominent lately in the columns of the newspapers of Great Britain and the World, and yet it is doubtful if many people have a clear idea of what these names really mean. Even one of the leading "Dailies" has misquoted the number of Gurkha V.Cs. and the number of Gurkha battalions now serving in the British Army, while reports have referred to provinces as towns, to hamlets as important centres and to Indian towns as being in Nepal.

Nepal became a kingdom in 1768, before India came under the British Crown. Gurkhas first enlisted in the Indian Army, to serve under British officers, in 1815. Nepal sent her own army to help the British Raj during the mutiny of 1857. In the 1914-1918 War she supplied 55,000 reinforcements to the Gurkhas serving in the Indian Army; she also sent a contingent of her own army amounting to 20,000 and she contributed money and goods to the common cause. In the 1939-1945 War she gave 126,000 reinforcements to the Indian Army as well as the loan of over two brigades of her own army. In that war Gurkhas earned twelve V.Cs.—three in one battalion—and suffered 23,700 casualties.

Roughly five hundred miles from West to East and one hundred miles from South to North, the only independent Hindu Kingdom in the World, Nepal is surrounded on three sides by India and on one by Tibet. The Country contains a population of between five and six million and has a constitution peculiar to itself. Prithi Narain Sahi, King of Gorkha, subjugated the entire area, previously a mass of small states and principalities, in 1768, and died six years later. His son only survived him by three years; since when there have been seven kings of Nepal, direct descendants of Prithi Narain, every one of whom succeeded to his throne as an infant. In 1846, Jang Bahadur Rana was made Prime Minister, Supreme Commander-in-Chief, Maharaja and Marshal of Nepal and, the King being an infant, he was granted supreme authority. These powers have been inherited by descendants of Jang Bahadur's youngest brother, the Shamsher branch of the Rana family, who have ever since retained all power in the Country. In "Nepal" published in 1928, Landon gives the genealogical tree of the Rana family with the following notes:—

"(I) Those born of lawful marriage and in equal caste with their parents have no marks against their names.

(2) Those born of lawful but unequal marriage are marked 'b'.

(3) Those born illegitimate are marked 'c'."

Those of 'b' and 'c' classes are omitted from the Roll of Succession whilst some of those under (I) have also, at times, been removed from it for various reasons. Most of these have resided in different parts of India, many in Calcutta where there is a large Gurkha population unwilling, or unable, to return to their homes, as well as others in temporary employment. Not unnaturally, perhaps, not all of these are loyal to the present government of Nepal.

Her

Rai

Ner

Cros

thre

The name Gurkha—more properly Gorkhali as used by the Gurkha himself—is derived from King Prithi Narain's original little kingdom of Gorkha, now a province in Central Nepal, and was given to those martial tribes and their followers who formed his victorious army. Later it was extended to include the martial tribes of Eastern Nepal. It is, therefore, not applicable to all the inhabitants of Nepal, and certainly excludes such tribes as the Dotiyals of the Far West (most excellent

NEPAL · I27

stretcher-bearers) and the many Tibetan and other "Bhote" inhabitants of the Country. In fact, the Gurkha does not apply it to his rulers, whom he refers to as Nepali. Again, the Gurkha does not know his Country as Nepal. He refers loosely to it as "Pahar"—the Hills—and can only be held to a more precise definition by referring to his own locality. To him the word Nepal means only the Valley of Katmandu, all the inhabitants of which, to him, are Nepalis.

The physical geography of Nepal is peculiar to the Country. Lying along the main axis of the Himalayas, with Kanchenjunga inside and Everest half in Nepal and half in Tibet, it includes many of the Himalayan giants—Dhaulagiri, Annapurna, Manaslu, Gosainthan, Himal Chuli, Machhar Puchhre the Fishtail,—to mention a few of the better known. The Country covers the whole of the southern slopes of these mighty mountains and, sweeping over their foothills and the low-lying Sewaliks and Duns, it extends a short way into the plains to include the Terai belt. The Terai was at one time impassable during most of the year owing to its feverish nature and poisonous water; but it may now be crossed in several places, swiftly and safely, by motor roads with surfaces considerably better than those of the neighbouring roads in India. There are some eight or nine railheads in Indian territory from which roads lead for varying distances up to the foothills, whence mountainous footpaths, fit only for pack transport singly led for most of the way, lead into the interior. The exception is the route to the valley of Nepal, that small enclosed saucer holding Katmandu and two or three other ancient cities no longer of importance.



Here, the Indian railway running to Raxaul is continued by the Nepalese Government Railway, which covers the twenty-five miles to Amlekhganj—the Bichiakoh of the Nepal Wars—in four and a half hours. At Amlekhganj the traveller finds motor transport waiting to take him a further twenty-eight miles over a metalled road, crossing many wooden and steel bridges and passing under one ridge by a tunnel, through typical Dun country, penetrable by infantry but easily defended and giving no scope to armour, to roadhead at Bhimphedi, 3,650 ft. above sea level. The traveller

a

e

S

of

must now take to his feet or a palanquin, or a pony if he is a senior official, to climb 2,200 feet in four miles to the resthouse and ancient keep of Chisapanigarhi (Fort Coldsprings) and, just above it, the pass of Sisapani. Beyond this are twenty-three miles of badly surfaced and difficult mountainous path, as difficult as any in the old North-West Frontier fighting ground of the Army in India, before facing the Chandragiri Pass (7,700 ft) and the drop of 2,400 feet into the Valley with its nine mile tar-macadamed road leading to Katmandu.

Lateral communication is almost non-existent. An official travelling on duty to any part of the outlying country must go southward to pick up the Indian railways before he can turn North to enter the area of his destination. These routes to the North are few and far between. In the East, towards Darjeeling, one of the main provincial roads leads from the railhead of Jogbani to Dharan at the foot of the hills forty miles inside the border, and then to the town of Dhankuta. On its way, close to the Indian border, it passes Bhiratnagar, one of the new industrial areas of Nepal.

I

h

a

b

fe

SE

01

de

u

an

th

COI

in

To the West of Raxaul are some four railheads of which the most important is Nautanwa through which some 64 per cent. of British or Indian Gurkha soldiers travel. Although recent reports allowed the insurgents to claim the capture of this insanitary, vicious and overgrown village, it is over four miles from the Nepal border the road to which is unmetalled, unbridged and undrained. Beyond the border a metalled road leads to Batoli (Butwal of the maps) at the foot of the hills, passing on its way the little hamlet of Bairhwa-scene of recent troubles-with its dozen booths, lawcourt and residence of the local governor (Bara Hakim). Batoli is a thriving market in spite of its unhealthiness in the hot weather and monsoon, and copes with the busy import and export trade to and from the hills of Central Nepal. It is the Winter headquarters of the Governor of Palpa, the most important official outside the Valley whose full title is Commander-in-Chief, Western. The town is approached by a steel suspension bridge over the Tinu Khola which is guarded by a gun captured from General Wood's division in 1815. Beyond Batoli the path winds steeply up and down the foothills and through narrow ravines, all densely forested, before it descends to the low ground below the first of the true ridges of the Himalayas—a long day's march—from whence other paths lead off to destinations all over Central Nepal and parts of Western Nepal.

The Nepalese army has no modern artillery, no air force and, indeed, is deficient in supporting arms of all kinds. On the other hand, the country is ideally suited for defence. A modern army without vastly superior numbers could conquer it, no doubt, but with difficulty and with heavy casualties. A rabble, like the present so-called insurgents, has found it impossible when faced by a few infantry battalions. It is surprising, therefore, that the recent attempt was made, even with the flight of the King as an excuse.

The Nepalese National Congress Party (N.N.C.P.) was formed some twenty-five years ago as an unimportant offshoot of the Indian Congress Party from whom support was hoped for when the time came, and it was composed of Indian domiciled Gurkhas who had imbibed much political propaganda. It has since included in its ranks anyone willing to subscribe to its funds: expelled Nepalis, Indians hoping to obtain something for themselves, and those few Gurkhas who fell to Japanese blandishment, enlisted in the I.N.A. and have consequently been refused re-admission into Nepal, and others of like nature. The N.N.C.P. has never had any following of hill Gurkhas, who despise it, and has never been in a position to speak for them. Yet no insurrection in the hills of Nepal could succeed without the universal support

NEPAL 129

of the Gurkha tribes, and their influence would count very heavily for any change in the Valley.

The Gurkha has never been politically minded. He was content to soldier in the old Indian Army and to return to his home where, if he got little in return for them, his taxes were light and officialdom carefully left him alone. The War undoubtedly opened his eyes to what he might expect to be done for him in his hills; nevertheless, the majority were satisfied to be left undisturbed to till their fields and tend their cattle. What his views are regarding the present troubles have not yet been disclosed. To him King and Maharaja are equally far away and it may well be that he is simply not interested.

Slavery was only abolished in Nepal as late as 1927, and other reforms have since taken place slowly. That there is room for many more is indisputable, but rapid doses of medicine seldom produce a rapid cure. Maharaja Sir Joodha Shamsher inaugurated many reforms before his retirement in 1945; but so far little has been done to effect the most urgent which is the introduction of some form of representative government, despite pressure brought to bear on this matter by the new India. It must be remembered, on the one hand, that hitherto all power has been in the hands of the Rana family who have filled all the important posts, military and civil, and that any surrender of power must be considered by them and their adherents to be the thin end of a wedge after a century of omnipotence. On the other hand, few hill Gurkhas have the education to occupy responsible positions as yet. The semi-educated, politically inclined type of the N.N.C.P., with no loyalty to Country or race, is unsuitable in the extreme and would have no support either in the Valley or in the Hills. Their action, however, has brought matters to a head and undoubtedly rapid changes must now take place.

The Rana family all have private means and the salaries of their posts are uncertain, but the ordinary senior civil servant, who may or may not have a private income, has a salary of under £700 per annum, whilst a junior civil servant draws only £7 a month. A Dittha, or Magistrate, is paid £3 per month: a Gurkha rifleman serving in Malaya draws no less. There is therefore, at present, little inducement to accept a government post; and in the near future, whether Sahi or Rana controls Nepal, changes must include representatives of the hill tribes who are paid a salary better than that of a King's Gurkha Officer or Junior Commissioned Officer (call him what you will), that will induce them to accept office and to view it as a profession for their sons.

Nepal has never had to acknowledge any form of subservience to India. In 1792, however, she had peace dictated to her at her very gates by a Chinese army, and missions with presents to the Celestial Emperor, who returned greater value than he received, were despatched until 1908.

Britain, America and India, are now considering what course they will pursue in their immediate relations with Nepal. India, under the original agreement of 1948, was to maintain twelve battalions of Gurkhas and still maintains nearer double that number. America has an interest in British forces in the Far East. The Gurkha soldier is a valuable addition to any army.

Should a timely and suitable remedy to Nepal's present troubles not be forthcoming the names of Nepal and the Gurkha are likely to occupy much more space in the newspapers of the World.

THE ADEN COMMAND 1945-47.

By AIR VICE-MARSHAL H. T. LYDFORD, C.B., C.B.E., A.F.C.

WO years is the normal tour of command at Aden but I was fortunate enough to serve there for three years. This included the latter part of the 1939–1945 War, and the transition to peace. During the latter part of the War the main tasks were the provision of anti-submarine patrols and reconnaissance to seaward. In addition there were responsibilities in relation to defence, internal security and air control in the Colony and the Western and Eastern Protectorates of Aden. For these tasks and responsibilities squadrons operated from airfields located in the Aden Colony, in Socotra, along the Horn of Africa and along the South Arabian coast as far as Masirah Island and Ras el Hadd.

The location of Royal Air Force units over such a wide area of the Middle East called for close co-operation with the Navy and Army and with the heads of Missions in Ethiopia, Eritrea, Italian Somaliland and with the Military Governor of British Somaliland. In addition to all this the A.O.C. Aden had to keep in close touch with the Governor of Aden.

After the War, the centre of gravity moved from seawards to the Aden Colony and Aden Protectorates, where a more forward policy was to be adopted in both areas. The close of the War automatically entailed large reductions in all three Services within the Command. Thus many airfields were evacuated including Socotra and those along the Horn of Africa and Ras el Hadd situated to the North-West of Masirah Island. There was therefore much work to do at a time when our strength was being reduced and men were clamouring for release. But we retained Khormaksar, Asmara and Hargeisa airfields and those airfields along the South Arabian route, as well as Masirah Island. The airfield at Kameran Island was also retained.

From 1945 onwards the Royal Air Force concentrated on the peace-time role of air control at Aden, and it is mainly with this subject that this article is now concerned. I have always looked upon the Aden Colony and Protectorates as a nation in miniature, since the same economic problems arise in minor forms as those which occur in the greater nations of the World. For example, if a tribe in one of the Protectorates suffers a bad harvest this can be the cause of tribal warfare or looting of trade routes. There are other examples of internal disorder, such as the breaking of a truce, the tyranny of local chieftains and the murder of prominent members of a tribe or tribes. This is where the Government of Aden investigates the situation and, if negotiation fails, the Royal Air Force is called upon to restore law and order.

For the maintenance of law and order in the Protectorate, the A.O.C. Aden has under his command aircraft, armoured cars and the Aden Protectorate Levies, all of which are trained to operate as a co-ordinated force. The types of aircraft employed at Aden are those suitable for air control, but they could be used for other purposes in a major war. Their main roles at present are to provide the punch, reconnaissance and communication. The armoured cars are useful in showing the flag and escorting political officers to the various tribal areas, when a show of force is judged to be necessary and where the safety of the political officer is thought to be endangered. The Aden Protectorate Levies is a locally raised ground force manned by Arabs who come mainly from the Western Aden Protectorate. The majority of officers and n.c.o.s are provided by the R.A.F. Regiment, to which are added a small number of Arab, commissioned and non-commissioned ranks.

There have been many small wars in the Aden Protectorate, but in my opinion the most interesting was against the Quteibi tribe towards the end of 1947. The

gh

d5 ain rd. air or en as

nst ish ith

ny th ces ra

of th ar,

as

a se of or he

nt es re

en es, ft er h,

he

is

be ed

of

all



necessity for this war arose as a result of constant raiding by Quteibis of the trade route between Aden and Dhala. As early as 1934 they had signed an agreement with the Government of Aden promising that they would observe the sanctity of this trade route, but this agreement was not honoured. In fact Government claims against them at the time amounted to 15,000 rupees and there were previous claims as well.

During November, 1947, earnest endeavours were made by the Government of Aden to negotiate with the Quteibi chiefs, but owing to the stubborn attitude of the

tribe the negotiations failed. The Governor after consultation with the A.O.C. Aden decided that the tribe must be punished. An ultimatum was prepared demanding compensation and fines payable in kind within one week, in default of which air action would be taken against them until they submitted, or until such time as the Governor felt that the Quteibis had been sufficiently punished. The ultimatum was broadcast by means of message dropping on 17th November, 1947.

It will be of some interest here to state that the Quteibi tribe consists of approximately 5,000 people, and that they form the strongest tribe in the Radfan confederacy. Their fighting strength would be about 1,400 men. Their country is located in a part of the Radfan mountains and is some ninety square miles in extent. They own large herds of goats and a few sheep and cattle; there is considerable cultivation in the wadis and on the upper slopes of the Jebel Hurid.

There was no response to the ultimatum and, consequently, a warning was dropped from the air instructing the people to evacuate their villages as punishment from the air would take place at the end of 48 hours. Aircraft, armoured cars and the Aden Protectorate Levies were co-ordinated in the operations, and the Quteibis submitted in two and a half days. Not a single life was lost. It is interesting to note that in previous operations against this tribe the time taken to secure submission was 61 days in 1934 and 127 days in 1940. The reason for this quick success in 1947 was due, in my opinion, to the greater efficiency of modern aircraft with a much heavier and more accurate punch.

The work of the Royal Air Force at Aden is not confined to offensive operations. There have been many instances of peaceful missions the aim of which has been to help in the development of trade of the Country. For instance, a road reconnaissance was undertaken in the Habban area during March 1946. An armoured car section attempted to find a route for vehicles (both Service and civilian) from Aden to the northern part of the Protectorate beyond the escarpment which runs parallel with the sea. The section followed the coastal road to Ahwar (170 miles) and then up Wadi Ahwar to the Manq'a plain (70 miles) where a landing strip and an advanced base were established at Mafidh. A road was built, mostly by the efforts of the armoured car section, over the Aradh (3,050 feet) and Mashara (3,350 feet) Passes. This road enabled the armoured cars to go a further 23 miles to within 7 miles of Habban. Whilst work was proceeding on the road a route to the plateau and beyond Yeshbum was surveyed on foot with camels. It was found that a good track could be made over these last ten miles with less effort than was required to make the Aradh pass. Vehicles could then reach Yeshbum, Beihan, the Hadhramaut and the whole of the South Arabian plateau without undue difficulty. Owing to the rough nature of the country and the consequent strain imposed on vehicles, major repairs became almost a daily necessity, and it was decided to leave a gang of workmen to complete the road to Habban whilst the section of armoured cars returned to Aden. Unfortunately, as soon as the force withdrew tribesmen intervened and prevented further work. A second road reconnaissance to Habban was made in December 1946. The force consisted of two armoured cars; two jeeps with Bren guns; four 3-ton trucks; two 15-cwt. utility trucks, and one jeep wireless tender. Repairs were made to the Aradh and Mashara passes, and despite considerable tribal opposition the track was continued to Habban. Owing to inter-tribal difficulties the Force returned by another route arriving at Aden on Christmas night, having covered nearly three hundred miles of new country.

The two examples I have given, one of war and one of peace, illustrate the type of work which the Royal Air Force is called upon to do in the Aden Command. Although there is much work there is also time for play. For those who wish to ride there are opportunities at no great expense. There is shooting up the Wadi Kebir and in British Somaliland where there is a choice from a sand grouse to a lion. Those who are interested in deep-sea fishing can get no finer sport anywhere than at Kameran Island. Besides all this there are opportunities for golf, tennis and swimming all the year round—again at little cost.

In conclusion it can be said that Aden is not an unhealthy part of the World, provided those who serve there take plenty of exercise. Above all, the Country is an excellent training ground for war.

orders up for National Service contains that in place in the treating served of a more called up for National Service course, which is not the historial force from the treatment of the service of the treatment of the service of the treatment of the service of the service of the service of the treatment of the treatment of the service of the service

TRAINING THE NATIONAL SERVICE ARMY OFFICER AT EATON HALL

By Major W. K. B. Crawford
The Royal Scots (The Royal Regiment)

LTHOUGH the selection and basic training of potential officers and their subsequent experience in units are all important in the production of leaders for the nation in any future emergency, they each merit extensive independent study. It should be appreciated that the Royal Military Academy, Sandhurst produces all young Regular officers while National Service officers are trained at two main Officer Cadet Schools, Eaton Hall and Mons, with the assistance of a series of Arms Schools carrying out final training for specialist Corps. Eaton Hall produces National Service officers for Infantry (including the Brigade of Guards), R.E.M.E.,1 C.R.M.P., Intelligence Corps and, from time to time as required, for the Royal Marines; and it also gives basic officer training to candidates for the R.A.O.C.3 and the R.A.E.C.4 The production of National Service officers for the remaining Corps of the Army is the task of Mons Officer Cadet School. The completion of training for those specialists basically trained at Eaton Hall is the responsibility of the appropriate Arms Schools, although they remain on the strength of, and are ultimately commissioned by Eaton Hall. It is therefore with officer training on the framework of the needs of the Infantry that both Eaton Hall and this article are concerned.

Before studying the work of Eaton Hall, its place in the training period of a man called up for National Service must be understood. After call-up the National Serviceman receives a minimum of ten weeks' basic training at an Arms Basic Training Unit. If so selected, he proceeds as vacancies permit to Eaton Hall, where he carries out either all or part of his Officer Cadet School training. Eventually he is posted to a unit of the Regular Forces as a National Service officer, for the balance of his two years' full-time service. He then has a further period of three and a half years of compulsory officer service with the Territorial Army to complete before his full total commitment of five and a half years is discharged. The School must, therefore, run a series of courses, of sixteen weeks' duration at present, in order to fulfil its role as a link in this chain, and each course is divided into two phases, the Primary Phase and the Advanced Phase.

The Primary Phase is to give potential officers of certain Arms and Services elementary training in basic military subjects common to all arms, and to assess their fitness to proceed to more specialized training for commissioning in their own particular corps.

This Phase lasts for six weeks, at the end of which time candidates for the R.A.O.C. and R.A.E.C. proceed to their special Arms Schools. Candidates for Infantry, Royal Marines, R.E.M.E., C.R.M.P. and Intelligence Corps then continue with the Advanced Phase, and all complete the full Infantry Course.

The Advanced Phase is to continue the training given in the Primary Phase, in order to turn out an Infantry 2nd Lieutenant sufficiently grounded in all aspects of platoon and section training, company administration and general military knowledge so that, after further practical experience in a field unit, he can exercise effective command as a platoon officer.

¹ Royal Electrical and Mechanical Engineers.

² Corps of Royal Military Police.

³ Royal Army Ordnance Corps.

⁴ Royal Army Educational Corps

While the value of this essentially infantry background for C.R.M.P. and Intelligence Corps candidates is obvious, it may not be understood why R.E.M.E. candidates carry out the full course. The reasons are twofold. During the rest of his service with the Regular Forces the R.E.M.E. officer is fully occupied attending technical courses of one sort or another, or in actually supervising technical work; he has, therefore, no further opportunity of basic officer training, and it is felt that the full Infantry course can best fill this need. R.E.M.E. is integrated with the actual fighting Arms more than other Corps, and their officers must have a thorough knowledge of the working of the "teeth" of battle which it is felt can best be learned through training in Infantry work.

r

s

of

1

1

1

f

r

1

e

s f

e

ENVIRONMENT

The actual site of the School provides a good background for officer production. Eaton Hall, near Chester, is the seat of the Duke of Westminster, and was built in its present form towards the end of the XIXth Century. The accommodation was increased during the late war by the erection of brick hutments to meet the needs of the cadets of the Royal Naval College, Dartmouth—the war-time occupants. These detract from the somewhat grandiose dignity of the original buildings, but they are essential, and a series of outside lecture huts have been added for the use of the School. The very fine grounds are still maintained more or less intact, and the sporting facilities are of a high order.

Against this stately background, the constant problem of the difficult transition from other rank to officer status is made easier. In these days when it is not always clear that "Service before self" has still a very real meaning, the trappings of by-gone elegance help to lift training above the normal routine of "learning to be an officer" into the realms of "learning to lead men."

ORGANIZATION

The Commandant holds the rank of lieut.-colonel, and the School is organized into a headquarters, a headquarters company and three training companies, in addition to which a detachment is maintained at Okehampton in Devonshire, as the permanent staff of the Battle Camp. The total permanent staff establishment is 47 officers and 281 other ranks, and the number of young officers produced by the School is about 800 each year.

The normal complement of headquarters is the Adjutant, who also directs drill instruction, the Orderly Room staff, a Quartermaster and a permanent President of the Regimental Institutes, each with his staff. The Second-in-Command, who is also Chief Instructor, is responsible for training, and he is assisted by a sub-department directed by the Methods Officer, who governs the method of instruction and is also responsible for the co-ordination of progress reporting and the grading of the cadet. The Assistant to the Chief Instructor and the Programmes Officer, with a staff of clerks and miscellaneous specialists such as projectionists and signwriters, complete the establishment of the Chief Instructor's department.

There are also several specialist instructional teams for subjects such as Weapon Training, Physical Training, Signals, Education, Driving and Maintenance which work under the direct supervision of the Chief Instructor's department, together with a Royal Engineers' n.c.o. instructor, the Medical Officer insofar as his instructional duties are concerned, and a demonstration platoon which is provided on attachment by line battalions in rotation.

The three training companies are each organized on an establishment of a company commander who is a major, an administrative officer, eight captains as platoon instructors, a company sergeant major, a company quartermaster sergeant, a drill sergeant, a clerk and storemen. All other ranks who are not on the establishment of a training company are on the strength of headquarters company. The Battle Camp Detachment administers the camp and provides n.c.o. assistants to the Platoon Instructors for carrying out field firing exercises during their platoons' stay there.

Intakes of cadets, about sixty strong, join the School every fortnight, and are received by training companies in rotation. Each intake is divided into two platoons and the Platoon Instructor remains with his cadets throughout their stay at the School, and teaches them all the basic subjects apart from those taught by the specialist teams. The Programmes Officer produces central block programmes to ensure that all specialist training and the use of equipment are properly co-ordinated, and that the full syllabus is correctly followed; individual training companies arrange their instructors, places of parades and administrative details accordingly.

THE SYLLABUS

Broadly speaking the subjects to be taught and the proportion of the total time to be devoted to them are laid down by the War Office. The detailed material of each subject and the accuracy of fact and tactical doctrine are the responsibility of Eaton Hall. Reference to appropriate Directorates at the War Office, to the School of Infantry and, on occasion, to the heads of specialist branches of the staff of local headquarters ensures that teaching keeps pace with the latest requirements.

In the Primary Phase more than a third of the instruction is devoted to tactical study, dealing with the essential grounding from the principles of war to the handling of the section and platoon in both attack and defence. Next in order of allotment of time come Drill and Physical Training, followed closely by Map Reading, Technique of Instruction, Weapon Training, Military Law and Administration, the last being principally concerned with pay matters. Also covered in smaller proportion are Military Organization, Hygiene, Signals, Intelligence and Education which is based on the running of current affairs discussions.

In the Advanced Phase the emphasis on tactics is repeated. Weapon Training is stepped up and culminates in the last week when the cadet has to prove himself competent at the handling of platoon weapons by classifying in each of them. Drill, Administration, Morale, Physical Training, Signals, Military Law, Education (once again of the current affairs variety), Mechanical Transport are included and Technique of Instruction and Fieldworks are taught in very nearly equal small proportions, while Air Support, Hygiene and Military Organization are touched on finally and very lightly.

Over both phases nearly a fifteenth of the instruction is devoted to Recreational Training which, with a few periods spent on testing, completes a grand total of six hundred and ninety periods each of forty minutes.

THE SCOPE OF SUBJECTS

In order to fulfil the objects of the complete course, the emphasis is on the platoon throughout, and all subjects covered are designed to produce a young officer at least knowledgeable in all aspects of the handling of this sub-unit. In tactics, for instance, the cadet learns the platoon's part in the main operations of war, both by itself and

within the framework of the company. He learns what support to expect in the field and how it is provided, and he spends a good deal of time in studying the planning and operation of all types of patrols. In all such training he is considered to be operating in country similar to North-West Europe.

During Weapon Training he learns how to use all company weapons in a practical and capable manner, and to be a supervisor of instruction with ability to assess and direct his n.c.o.s on this subject. He is not intended to leave Eaton Hall as a qualified weapons instructor although he does obtain experience of mutual instruction.

e

e

1

Physical Training is designed to keep him fit and to build up his stamina for the culminating test of the Battle Camp. In addition, he is taught how to organize and run games and unit sporting events, such as athletic meetings and boxing matches, and he sees, by taking part in them, various forms of Physical Training Instruction. He is not supposed to be capable of conducting personally his platoon's P.T. tables.

In Military Law he is instructed in the powers of a company commander and a commanding officer, and has practice in dealing with cases at a company office. He studies in outline the law and procedure applied to a case from the time of arrest to trial by court martial.

His foot and arms drill must reach a high individual standard and he must be able to drill a squad confidently and to command a platoon in a company parade.

THE EMPHASIS ON LEADERSHIP

Dominating all teaching is a constant stress on leadership. To this end responsibility for a great measure of their own administration is placed on the shoulders of the cadets from the start of their course. The School's inability to give them any practical experience of handling men is thus compensated for in part. The luckiest in this respect are those appointed Under Officer in a system similar to that of the Royal Military Academy, Sandhurst.

METHOD OF INSTRUCTION

Maintaining interest and a constant absorption of knowledge is the problem facing any institution which has to teach a great deal in a relatively short time. In this respect Eaton Hall is no different from any other such institution, and all the ingenuity of a special sub-department is bent towards overcoming it. To ensure unity of purpose and accuracy of doctrine all instructors give their lectures and conduct their exercises from scripts which are issued centrally. These scripts are produced, altered and amended by the whole instructional staff under the co-ordination of the Methods Officer, and incorporate the latest facts and teachings with the personal experience of a wide range of officers.

A high proportion of valuable factual instruction, particularly in Military Law, is delivered in the form of playlets, interest being increased by cadets themselves taking part in some of the productions. The cinema, filmstrip, cloth model and epidiascope are all used to the fullest extent possible.

The stimulus of competition is achieved by a Champion Company Competition which takes place about four times a year, or often enough to allow all advanced course cadets to take part at least once during their stay.

STANDARDS ACHIEVED

Owing to the high present-day standard of officer selection, very few misfits ever reach Eaton Hall, and the material upon which the School has to work is of the very

best. The majority of the cadets show great personal enthusiasm partly because they have something definite to work for, partly because they have been chosen for their keenness, and partly because they have the intelligence to appreciate their responsibility as potential National Service leaders. These facts make the task of instructing cadets an easy one and help to produce an understanding between instructor and student which benefits the translation from other rank to officer.

It is an interesting fact that the number of cadets "relegated" or set back in their course for a given number of weeks was 7.94 per cent. during 1950, and for the same year the percentage returned to units was 2.61. The number of adverse reports from subsequent commanding officers is proportionately negligible.

The final product of the School is a young officer, keen to do his best during his National Service, and qualified to be given a platoon which, with more practical experience, he will be able to command efficiently. He will have slightly more practical knowledge of the actual mechanics of his job than his counterpart the Regular subaltern from Sandhurst, but without the same military and academic background and, somewhat naturally, he will not have quite the same degree of soldierly purpose.

THE INSTRUCTOR

No survey of any training establishment would be complete without mention of the instructors. At Eaton Hall the Platoon Instructors are drawn from line regiments and are mostly substantive captains with an average of nine or ten years' service with war and considerable general experience. Each of these directly controls the training of some thirty cadets, assesses their progress periodically, makes recommendations to his company commander regarding their capabilities and finally reports upon them. It is considered that for such a comparatively short course, this is a better system than making each instructor specialize in a particular subject, like a schoolmaster. Obviously, however, certain subjects are outside the scope of the Infantry officer and for these an officer of the Royal Armoured Corps, the Royal Artillery and R.E.M.E. are always on the strength of the School.

In addition to their duties as instructors, the Infantry officers act as representatives of regiments within their brigades, and advise colonels of regiments about the suitability of their candidates. They also assist cadets passing out with details of dress, regimental customs and general information about battalions.

CONCLUSION

While conscription exists, Eaton Hall will probably continue to be the home of the National Service officers for the Infantry and R.E.M.E. It is slowly building up its own traditions and its products are to be found serving in all parts of the World or living in all walks of life. It has already borne a share of the casualties in Malaya and Korea, and some of its students have gained distinction in the same fields. It also plays an important part in moulding some of the best of the Country's youth at an impressionable age.

If it can add to its practical work of turning out junior officers by instilling a wider concept of duty, not only to the soldier and the Army, but to the community at large, then it has served a useful national purpose. It is no exaggeration to say that the National Service officer of to-day is as much the civil leader of to-morrow as he is a bulwark against war. If he continues to serve as a citizen in the way he has served as a soldier, the future of our Country will be assured.

THE NAVY'S FOOD

By COMMANDER (S) T. P. GILLESPIE, R.N.

ANY books and articles about the advances in naval ship design, tactics, gunnery and kindred matters have been written throughout the years. The subject of food for officers and men, however, has been but lightly if at all discussed and has usually been dismissed with a statement to the effect that the food was of a very low standard. Samuel Pepys, who has so rightly been called the Saviour of the Navy, and who was himself at one time a clerk in that Service, realized the importance of this subject to the full, for he wrote:—

"Englishmen, and more especially seamen, love their bellies above everything else, and therefore it must always be remembered in the management of the victualling of the Navy, that to make any abatement from them in the quantity or agreeableness of their victuals, is to discourage and provoke them in their tenderest point, and will sooner render them disgusted with the King's Service than any other hardship that could be put upon them."

This is also recognized by the Naval Discipline Act, Section 37 of which states:—
"Every person subject to this Act who shall have any cause of complaint, either of the unwholesomeness of the victuals or upon any other just ground, shall quietly make the same known to his superior.... and no person subject to this Act upon any pretence whatever shall attempt to stir up any disturbance, upon pain of such punishment as a Court-Martial may think fit to inflict, according to the degree of the offence."

The notes that follow have been collected from various sources with the object of providing an introduction to the "pussering" side of the Navy, and to give some idea of how victualling has developed during the last three hundred years.

A List of the Royal Navy published in 1660 gives the allowance of food for ships serving off the English coast as follows:—

I	tem		1 day	I week	I month	6 months	For I man 10 months or 10 men I month.
Bread,	bisk	et	Ilb.	7 lbs.	28 lbs.	168 lbs.	280 lbs.
Beere			I gall.	7 galls.	28 galls.	168 galls.	280 galls.
Beefe		***	2 lbs.	4 lbs.	16 lbs.	96 lbs.	40 × 4 lb. pieces
Porke			I lb.	2 lb.	8 lbs.	48 lbs.	40 × 2 lb. pieces
Pease			I pt.	I qt.	I gall.	6 galls.	40 qts.
Fish			1	1	11/2	9	15 sized
Butter			2 ozs.	6 ozs.	ılb. 8 oz	. 9 lbs.	15 lbs.
Cheese	***		4 ozs.	I2 ozs.	3 lbs.	18 lbs.	30 lbs.

Not all the kinds in one day.

r

n

e

S

ıl

e

e

c

e

1-

S

a

a e

ıl

d

n

After the Restoration (September, 1660) one Denis Gauden was appointed "surveyor general of all the victuals to be provided for His Majesty's ships and maritime causes" and was responsible for the victualling of the fleet. Shortly after the declaration of war this system broke down and, as a result of Pepys' proposals, an officer was appointed at each port to supervize the victualling; Pepys getting himself appointed as Surveyor-General in overall charge. This arrangement resulted in some improvement but, in 1667 and 1668, complaints again became frequent. A new contract was drawn up and, by an Order in Council dated 26th September, 1668, Gauden again undertook to victual the fleet at 6d. per diem per man in harbour and 8d. per diem at sea, with an additional \$\frac{1}{2}\text{d}\$, per diem when going \$27\text{o}\$ southwards.

Complaints continued, however, and a new contract was signed in 1673. For a time complaints died down, but by 1678, they were as frequent as ever and, on 31st December, 1677, yet another contract was signed. In this new contract the regulations for the issue of provisions were rather complicated and were designed chiefly to prevent pursers having command of cash. The accounting system too was most elaborate. The contract was to run indefinitely with a year and a quarter's notice on either side, and the contractors were entitled to have "one servant or deputy (if they think good) in each ship."

In spite of Pepys' hopes this contract did not fulfil expectations and within a year complaints of poor victuals started to arrive. This may well have been caused by "the bad payment of the victuallers and other contractors" and the fact that "under those necessities of the King's service anything is accepted instead of good, because the service must be supplied, and better was not to be had." Mouldy meat, the "ill quality of the brandy" and the poor keeping qualities of the beer were just a few of the many complaints that troubled Pepys at this time. In May, 1679, however, he went out of office, and his successors decided to abandon the contract system in favour of a State Victualling Department similar to that established under the Commonwealth in 1655. The new department was established by patent dated 10th December, 1683, and commissioners for victualling "more conducible to our service, as well in lessening the charge for victualling our navy as in furnishing the same at all times with good and wholesome provisions" were appointed. On the whole, judging from the lack of complaints, the new victualling department appears to have worked and withstood the test of mobilization in 1688.

The next hundred years saw little change in naval victualling. Admiral Vernon first ordered rum to be watered in 1740 (prior to this the daily ration had been half a pint of neat rum) and at the same time introduced the word "grog" into the English language.

In 1781, Sir Gilbert Blane, who had accompanied Rodney to the West Indies in 1779, wrote his memorial to the Admiralty "proposing means for preventing the sickness and mortality among His Majesty's seamen in the West Indies." He proposed the issue, whenever possible, of fresh vegetables and fruit, especially oranges, lemons and limes, and the substitution for rum of wine, porter or spruce beer, chiefly as a means for preventing scurvy. Although others, notably Sir Richard Hawkins and Captain James Cook, had proposed the same reforms earlier, it fell to Blane to push them through the Admiralty and eventually, with the exception of the substitution for rum, to get them accepted throughout the Navy.

Some years later, Leonard Gillespie, M.D., in his "Advice to Commanders and officers of His Majesty's Fleet serving in the West Indies on the preservation of the health of seamen," published in 1798, recommended an increase in the allowance of fresh vegetables, the baking of bread on board and the addition of rice, pepper, cocoa, sugar and fresh salads to the seamen's diet. He considered the state of the water issued on board to be a frequent source of disease and remarked that "even the water of the river Thames, if stinking, must be very unwholesome in a hot climate!"

Changes, however, were slow to come and in 1810 the basic ítems were still much the same as in 1660, though lime juice, cocoa and sugar had been added. The diet undoubtedly was bad and "perhaps the worst sufferers were the Midshipmen . . the seamen admittedly fared much worse, but comparatively few of them had been

accustomed to anything better" as Northcote Parkinson says in "Portsmouth Point"," but it is a fact that in these years complaints were not frequent and the quantity supplied was ample though the diet was monotonous.

or

st

to

st

ce

if

in

ed

at

d,

ly

er

y,

et

d

ır

rs

n

lf

le

n

e

d

IS

a

dh

d ie of r, ie n

11

The main items at this time were usually supplemented by the various messes by purchases from the shore and by fishing. Shark was considered to be a great delicacy and was frequently made into a chowder with the addition of pork, pepper, onions, potatoes and vinegar, the whole being covered over with dough an inch and a half thick.

Reformers too were busy in these years. A proposal to establish "British Naval Gardens" on the East Indies Station was made by Doctor Charles Fletcher, M.D., in his book "The Naval Guardian" published in 1800. These gardens were to grow various tropical fruit such as oranges, limes and bananas, as well as pumpkins and yams, for issue to ships and hospitals. Dr. Fletcher visualized making biscuit with lime water instead of ordinary water in order to improve its keeping qualities; he also carried out experiments in restoring the properties of old salt beef and pork by "boiling or dressing it in steam arising from the infusion of malt."

Some years later Sir John Dalrymple was experimently brewing beer at sea and, though the King's Second Brewer at Wapping stated that Sir John's beer was "near as good as the King's," the Admiralty insisted on ship trials being carried out before they committed themselves. The reports from sea were not too good and the Admiralty dropped the idea, or as Sir John rather bitterly put it "the Admiralty, whose forms and rules of office oblige them to act by compliance with reports in order to avoid responsibility did stop, and I dare say with reluctancy."

It was of course the discovery of canning in the first quarter of the XIXth Century that enabled the first real step forward to be taken for some years, and since then naval victualling has improved, if not rapidly at least steadily. Tea was first introduced in 1824, and other items followed.

A natural result of these improvements was the introduction of the Standard Ration and Messing Allowance system of victualling, which is still allowed for in existing Regulations. This system was designed to supply the ship's company with the ordinary daily requirements of the staple articles of diet in kind and, in addition, to credit the mess with a daily allowance of money per head to enable other provisions to be purchased to supplement the standard ration according to individual taste.

In brief, the daily "Standard I	Ration" was:			
Bread	10 ozs or Biscuit 7 ozs or Flour 10 ozs.			
Fresh Meat	1 lb.—beef or mutton, pork was issued on two days each month.			
Potatoes or fresh vegetables	I lb. An Jerus Transmission and Alexander			
	I oz.			
Sugar	2 OZ.			
Tea	oz. or Coffee 2 oz.			
Chocolate	oz. or Coffee I oz.			
Condensed Milk	oz.			
Jam, marmalade or pickles	I OZ.			
Preserved Meat or Salmon	4 oz.—one day a week in harbour, 2 days a week at sea as a supper ration.			
Rum	pint.			

¹ Reviewed in the JOURNAL, November, 1948.

And so we come to the present day when the ship's galleys and bakeries have changed from coal to electricity by way of oil fuel, and when the Supply Officer provides over 120 different articles of provisions instead of the eight he stocked three hundred years ago.

The normal system of messing in force nowadays is termed "General Messing," in which the Supply Officer of the ship is responsible for the complete messing of the ship's company except officers, and for ensuring that "a suitable and adequate dietary which conforms to the standard customary in the Service" is provided—this means four meals a day.

To provide this standard, the Supply Officer is allowed to expend a certain amount of money per head daily, which varies according to the ship's station, and he is not normally expected to exceed this allowance in a quarter. In the event of the allowance being exceeded, however, due for example to the high cost of local produce, the Supply Officer has to furnish an explanation to the Admiralty, but at the same time if an adequate standard can be produced for less than the authorized allowance, the latter should not be fully spent.

In General Messing meals are either :-

- (a) Drawn in bulk from the servery or galley in dishes for each mess, and served out at the mess tables by messmen in Chief and Petty Officers' Messes, or by the "cooks of messes" in the case of broadside messes. This system is known as "Broadside General Messing."
- or (b) Eaten in a dining space and not in messes: either the ratings collect their own meals on plates or platters from the serveries (Self Service System), or the meals are drawn by a standing party of ratings and distributed to the tables in the dining space (Team Service System). This method of messing is known as "Centralized General Messing."

In small ships, which are fitted with adequate galley and preparing space for the ships' company to be messed as a whole, but which do not carry a Supply Officer, the responsibility for running the General Mess rests with the Commanding Officer this is known as " Modified General Messing."

In small ships which are not so fitted, each mess is responsible for drawing and paying for its own provisions and for preparing its own meals, which are then cooked in the galley by the ship's cooks. A mess is credited with a victualling allowance in cash for each member of the mess, and the value of provisions drawn is charged against the total amount payable. This system is known as "Victualling Allowance Messing—Credit System."

Improvements are still necessary and, within the overriding limitations of weight and space, are being introduced whenever the necessary money is available. A fairly recent Admiralty Fleet Order, for example, envisages greatly improved lay-out of machinery in galleys, an increase in refrigerated space to cover the stowage of vegetables and iced drinking water plants, all designed to increase the habitability of ships.

ir

tl

The days of bad food and cooking are over, and one feels sure that were Doctor Johnson to have a meal on board a ship to-day, he would no longer wonder, "why folk go to sea while there are jails on shore."

THE R.U.S. MUSEUM

THE RUBENS CEILING

HE Banqueting Hall has been closed to Members and visitors since the end of August. The primary reason for this was the replacement of the ceiling panels painted by Rubens, which have now been cleaned and restored under the direction of the Ministry of Works. The present time seems opportune to republish an outline account of this chief point of interest in the building.

The year before the Banqueting House was completed in 1622, Rubens and Vandyck, during a visit to London, suggested to James I and Charles, Prince of Wales, that painted canvases should form the main part of the ceiling. Nothing, however, resulted for eight years. In 1629 Rubens who, besides being an artist was professionally an eminent diplomatist, came to England at the head of an embassy, and Charles I revived the project of decorating the Banqueting House ceiling with

paintings. Rubens undertook to do the work for £3,000.

Rubens made his designs for the ceiling at Whitehall, and the paintings were executed at Antwerp during the following five years, in intervals of his diplomatic missions, and with the assistance of his pupil, Jordaens. They were finished by July, 1634, after which they remained rolled up in a storehouse at Antwerp for a year, King Charles being unable to find money for Rubens' fee and the Dutch Government's export duty. The King arranged with Rubens for payment by instalments, after which the Antwerp Custom House authorities consented to forgo their claims. The paintings were found to have been damaged through damp while lying rolled up, but Rubens repaired and repainted the injured parts and, in October, 1635, the canvases were at last shipped to London. King Charles, to show his relief, presented Rubens with a gold medal and chain. He could not, however, manage to pay off the final instalment of Rubens' fee until July, 1638.

The ceiling is divided into nine panels, set in a richly moulded gilded framework. The oval centre panel represents the Apotheosis of James I. It shows the King shaking off the troubles of this World (symbolized by a globe) and ascending to heaven on the wings of an eagle, representing Justice. The two oblong panels on either side of the oval centre portray: the one Peace and Plenty, the other Harmony and Happiness; politely considered to be characteristics of James I's reign. The two large panels at either end depict: the one, the birth of Charles I, with King James on his throne pointing to the infant, who is being perfected by Wisdom; the other, King Charles' Accession, the monarch being shown embracing the Goddess of Wisdom and overcoming Envy and Rebellion. The adjacent smaller oval panels are intended to allegorize the triumph of Virtue over Vice. Incidentally, the series is one of the few

decorations by Rubens still in its original setting.

The canvases have undergone restoration six times: by Kent in George II's reign; by Cipriani in George III's reign; under the direction of Sir Robert Smirke in William IV's reign, when the Banqueting House was repaired and restored during the eight years between 1829 and 1837; again, later on in the XIXth Century; in 1906 and 1907; and the present occasion.

One of the centre panels and two of the friezes were publicly exhibited at the Orangery, Kensington Palace, during last December, and the sight of these vast and

heroic paintings at close hand was an experience to be remembered.

The interior of the Banqueting Hall and the North End is now being entirely redecorated to tone with the ceiling, and the whole work is expected to be completed by the end of April this year.

¹ Based on an article written by Edward Fraser in the JOURNAL for May, 1931.

THE INTERNATIONAL SITUATION1

By A. K. CHESTERTON, M.C.

KOREA

CHINA'S MILITARY PROBLEM

HERE are many who regret that when the Chinese troops crossed the Manchurian frontier neither the terrain nor the tactical disposition of his forces enabled General MacArthur to deal them what Field-Marshal Lord Montgomery would call "a terrific crack." Such a blow, at the beginning of their intervention, might have destroyed the morale of their armies and thereby profoundly influenced the attitude of Peking.

Chinese soldiers have never been subjected to modern battle conditions in sufficiently large numbers for an adequate testing of their quality. Mao's defeat of the Nationalists proved little. What is perhaps a much more important indication is that, despite their fantastic claims to have fought "thousands of battles," the Chinese Reds never inflicted a major defeat upon the Japanese or even put them to serious inconvenience. Old China hands believe that the centuries-old disdain of the warrior virtues in China requires only the shock of a large-scale disaster to supplant the dynamic of Communism, powerful though that dynamic may be.

Unfortunately, because of the need of the United Nations' forces to avoid encirclement, much ground has had to be freely surrendered, so that at the time of writing the prestige of the Peking Government stands much higher than the prowess of its troops justifies. The slowness of the Red advance, coupled with the failure seriously to embarrass the United Nations' withdrawal by sea from the North-East, suggests that there is no disposition to win by military glory what may be more easily attained by simple patience. There is perhaps another and deeper reason for Mao's apparent caution in pressing home his advantage. Once the United Nations' forces were withdrawn from Korea, should it be within his competence to compel such a move, the Chinese leader would lose an invaluable bargaining counter in any attempt to negotiate a Far Eastern settlement. It would be foolish, for example, to risk the hazards of an invasion of Formosa as long as he saw any possibility of capturing the island by the much simpler course of threatening Pusan.

WESTERN POINTS OF VIEW

So violent have been the fluctuations in Korea that the political developments are as difficult to foresee as is the more immediate military outcome. One thing alone seems certain—without a decisive reversal of fortune on the Korean battlefield the United Nations will suffer from a growing disunity of purpose.

The trouble is not that there has come into being a school of thought antagonistic to the views enunciated by the Commonwealth Prime Ministers on the need to avoid a major war in the Far East, but that there has arisen in the United States, as the result of recent events in Korea, a tidal wave of emotion which, although seemingly reckless of its own consequences, is strong enough to command at least some deference from the White House and the State Department. The American proposal to declare China an aggressor is unlikely to have been drawn up because in theory that appeared to be the next logical step or even because of any expectation that it would prove advantageous in the international struggle. The more probable reason is that it was

¹ As deduced from reports up to 31st January.

considered necessary to placate American public opinion—or, more accurately, public emotion.

America's Allies, and especially Great Britain, have incurred harsh criticism across the Atlantic because they do not share that emotion. The Nations of Western Europe realize that the frontier between life and death is not Parallel 38 but the River Elbe. They dare not allow their hearts to rule their heads. If a military verdict is secured in Korea, without the West being called upon to wage a war of attrition, they will rejoice, but what they will not subscribe to is a policy that would increase the chances of their being drawn into a vast conflict in the Far East from which they could expect only the most serious consequences.

The same considerations apply to a demand for the atom-bombing of the Chinese cities. It is perhaps outside the province of a political commentator to discuss the military aspects of assertions that "global war" has begun, and should be conducted by the use, among other means, of "the ultimate weapon." One ventures to point out, however, that Chinese Communism and its armies are not the product of the cities. They were mostly raised and wholly sustained in the remote hinterlands, Mao having decided in the late 'twenties to build his movement on an agrarian rather than a proletarian basis. Those who favour the use of this weapon may have worked out how many atom bombs would be required to extinguish the Chinese hinterlands: the rest of us are probably not tempted even to guess.

Another observation which may perhaps be permitted is that the psychological reverberations of the explosions at Hiroshima and Nagasaki are still active all over the World, and are nowhere more potent to inflame the minds of men than in Asia. To employ such weapons for the obliteration of Chinese cities would not only do nothing to liquidate the East-West problem; it would send such a shudder throughout Asia that what sympathy it has for the Western cause would vanish as swiftly as the news could travel. Nor would it be only the East which recoiled from the blast. The pacifist and "neutralist" movements in Western Europe would be enormously strengthened, thereby increasing the relative strength of the Soviet power-block. Were such recommendations to be adopted they might win the local war in Korea, but it would almost certainly be at the cost of grave handicaps in meeting a "global war" if and when it does break out.

INDO-CHINA

Cabinet changes in the Viet-nam State have been described as a means of fulfilling the Pau agreement and "satisfying the wishes of the people for a more representative Government." How far Eastern peoples demand representative government, or even understand the meaning of the phrase, is a matter of opinion. What can be said with some assurance is that they understand much better the meaning of strong leadership and never fail to respect it.

That is why France did well to send General de Lattre de Tassigny to take charge of the situation in Indo-China. The General on arrival at once made it clear that he had come with the purpose of accepting full responsibility and did not propose on any occasion, formal or informal, to appear as the fugleman of Bao Dai's Ministry. Shocked though these Ministers were at the means taken to apprise them of the General's conception of his own status, the psychology was nevertheless sound. No committees in the East could have done the work achieved by Clive, by Kitchener, by the Indian and Arabian Lawrences, or—for that matter—by Mao Tse-tung.

It is probable that General de Lattre de Tassigny will enjoy much more solid support in coping with the Viet-minh forces than was accorded to his predecessors. Informed opinion in American political and military circles is veering round to the view that the strategic importance of Indo-China is greater than is that of Korea, and regret is expressed that it was not chosen as the scene of the first big stand to contain Communism in the East. The result is that the strange duality in American thinking in Asia-to oppose the extension of Soviet power and at the same time to belittle what has been called "European colonialism"—is gradually being abandoned as impracticable. Bombers, tanks, lorries and warlike stores are being despatched from American ports to supplement the few weapons hurriedly, although belatedly, sent to Indo-China from Japan when things began to go wrong in Korea. It remains to be seen whether the eventual turning of the tables on the Viet-minh rebels will lead, as in Korea, to large-scale intervention by Chinese armies. Should that intervention take place the chances of preventing a third World War would almost vanish. The one remaining chance, indeed, would be the building up of sufficient power behind General de Lattre de Tassigny to deliver in front of Hanoi that "terrific crack" which General MacArthur was not in a position to deliver on the Manchurian frontier

SOUTH-EAST ASIA

The situation in South-East Asia, although stable in comparison with the Far East, cannot be described as strong. It might be much more healthy were the Kashmir dispute to be settled and the rival Commonwealth armies facing each other in that delightful country made available for increasing the general stability of the whole region. These armies contain some of the finest fighting men in the World. Whether or not a satisfactory solution in Kashmir, resulting in an Indo-Pakistan rapprochement, would lead the Governments of these two nations to revise their policy of aloofness from the international struggle against Communism is uncertain, but were they to align themselves more wholeheartedly with the West there is no doubt that, on the one side, they could greatly ease the burden in Malaya and, on the other side, they could give moral stiffening to the Persian administration, which is acutely conscious of the long-range nature of its present support.

There has also to be considered the menace of a weak and chaotically divided Burma. New Delhi and Karachi must be even more unhappy than are London and Washington at the news that the occupation by Red Chinese forces of Yunnan has been followed by their rebuilding of the Burmese Road, which runs from the capital of that province to Lashio, the railhead of the Mandalay line. This is another arrow aimed at the vital interests and communications of the non-Communist World. In the event of general war, or even in the event of a major war against China, Mao's forces could be in Rangoon almost as soon as road and rail facilities were able to take them there. If Thakin Than Tun, the Burmese White Banner leader, entered into an agreement with Mao, during his recent visit to Peking, to assist in the "liberation" of Burma, as has been reported, the Indian and Pakistan Governments have an even more urgent need to sink their differences and collate plans for their own defence.

Unfortunately, the Kashmir dispute is of the kind in which both sides can bring endless arguments to bear in support of claims which are among the most difficult to settle by argument. There is no confidence that the United Nations will be more successful than were the Commonwealth Prime Ministers in helping India and Pakistan to argue their way into agreement. A solvent would seem to be an adequate realization of the tremendous danger by which both Countries, and most of the World, are beset.

MIDDLE EAST

Although on the popular plane there is no abatement of hostility between Israel and Jordan, evidence exists to suggest that the Governments desire to reach a mutual understanding. This desire has almost certainly been fostered by Great Britain, whose policy, as yet tentative, suggests her own willingness in certain circumstances to form with both Countries a Middle Eastern alliance. Despite surface indications to the contrary, such a possibility was inherent in the situation created by the Palestine settlement and its adumbration was no doubt expedited by the renewed Egyptian demand for the removal of the British troops from the Canal zone. Inspired reports have hinted that Jordan would not only permit but would welcome the transfer of the garrison to Akaba. As Israeli troops were prevented by British action from seizing this port, loud protests from Tel-Aviv might have been expected as soon as the subject was publicly mooted. There seem to have been none.

The appeal to the Israeli mind of a Triple Alliance is obvious. Whether the benefits to Britain of a close bond with Israel and Jordan would compensate for the further deterioration of her relations with Egypt and a probable estrangement with Saudi Arabia, is a question that must have given occasion for anxious thought at the Foreign Office. Middle Eastern cross-currents are the trickiest in the World to navigate and British diplomacy has had too much experience of them to take them full steam ahead.

RECOGNITION OF SPAIN

The rescinding of the United Nations' decision to place Spain in diplomatic isolation shows that at last the Western Powers have awoken to the realities of the post-war situation. Spain and Portugal are among the most stable Countries in the World. They derive their stability, after years of chaos, from mildly authoritarian regimes which seem to be acceptable to the majority of their inhabitants.

There is no iron curtain around the Iberian Peninsula. Foreign visitors may go where they like and talk to whom they will. Most of those who have gone to Spain in recent years with an open mind say that the personality of General Franco is held in general esteem, but that the Falangist Party enjoys less favour, not because it is brutal—that allegation is rarely if ever heard—but because its privileged position tends to breed corruption in its members.

While Spaniards deplore this fact, the informed among them often express the view that there is probably much less venality in high places in Spain than in certain other Countries. When they contemplate the potentialities of anarchy elsewhere, moreover, they feel convinced that such modification of their enjoyment of freedom as the Falangist regime imposes is not a high price to pay for their international security, at any rate as long as it is possible for international Communist agencies to play havoc with the social and economic affairs of nations which afford them the privilege.

It is that internal security, that controlled response to events, which could make Spain so valuable to the West in the mounting World crisis. No country on earth affords less scope for fifth column activity, a fact the importance of which would soon be demonstrated in the event of war. As worthy of recognition are the high qualities of the Spanish heart and mind, the admirable fighting men at General Franco's command and a leadership which has endured with equal fortitude the storms of the civil war, the tremendous pressures encountered during the World War, and all the strains and stresses of post-war outlawry.

DIARY OF THE WAR IN KOREA

1st November.—Enemy counter-attacks continued and resulted in the loss of Huichon and isolation of elements of the South Korean 6th Division, while their 8th Division, supported by the U.S. 1st Cavalry Division, were forced to withdraw by North Koreans and Chinese. Further West the U.S. 24th Division advanced to within 24 miles of Sinuiju.

2nd November.—In North-East Korea the enemy continued their counter-attack against the South Korean 3rd Division, now supported by elements of the U.S. 7th Division South of Changjin. In the North-West heavy attacks by North Koreans and Chinese caused the withdrawal of the South Korean 6th and 8th Divisions, elements of their 1st and 7th Divisions and the U.S. 1st Cavalry Division, while the vanguard of the U.S. 24th Division in the West fell back to conform. Some units of the U.S. 1st Cavalry Division were cut off.

3rd November.—The enemy counter-attack in North-West Korea reached the Chongchon river. The U.S. 2nd Division moved up to reinforce their 1st Cavalry Division and the four South Korean Divisions which had again been forced to fall back.

The first troopship with Brigade Headquarters and some units of the British 29th Brigade arrived at Pusan.

4th November.—In the North-East U.S. Marines advanced between Hamhung and Changjin. On the Chongchon River the enemy attacked the South Koreans in an area 20 miles inland and the U.S. 24th Division near Pakchon.

5th November.—In the North-East the U.S. 7th Infantry Division advanced to within 40 miles of the border, while their 1st Marine Division was partly encircled but fought their way out. In the North-West the enemy resumed his attack along the Chongchon River, the 27th British Commonwealth Brigade being nearly cut off. Reports indicated that three Chinese Divisions took part in the fighting round Unsan and that there were other Chinese elements in reserve. Superfortresses bombed Changjin and Kanggye, but poor flying weather prevailed.

6th November.—The South Korean Capital Division continued to advance up the East coast. U.S. Marines were held up short of Changjin reservoir by attacks of Chinese troops. In the North-West U.S. troops regained ground near Anju lost earlier in the day, and enemy activity on this front lessened.

7th November.—U.S. Marines captured a ridge five miles from Changjin reservoir while under fire from Chinese manned artillery. The U.S. 24th Division and the British Commonwealth 27th Brigade enlarged their bridgehead on the Chongchon River. An air action occurred between American fighters and Russian-type jet fighters over the Sinuiju area.

8th November.—Advanced troops of the U.S. 3rd Infantry Division landed at Wonsan. U.S. and South Korean troops were heavily engaged with North Koreans and Chinese in the Tokchon area. The 24th U.S. Division and the British Commonwealth 27th Brigade advanced slightly near Pakchon. Superfortresses dropped 600 tons of bombs on Sinuíju.

9th November.—On the East Coast the South Korean Capital Division made a further advance. Elsewhere, with the exception of two patrol actions in the centre and North-West there was no contact with the enemy. Nearly 1,000 United Nation aircraft were in action during the day, and railway bridges over the Yalu River were bombed. Reports indicated that some 60,000 Chinese troops were in Korea.

10th November.—U.S. Marines advanced six miles in the Changjin reservoir area. U.S. troops from the West linked up with those from the East South-East of Tokchon. Considerable shelling by the enemy occurred in the West-Central area. The railway and road leading to Kanggye were bombed by our aircraft.

11th November.—The U.S. 3rd Infantry Division linking with South Koreans East of Tokchon closed the one remaining gap in the front. In the Chongchon bridgehead the



U.S. 2nd Infantry and 1st Cavalry Divisions seized high ground to the North. The U.S. 24th Division, with the British Commonwealth 27th Brigade, and their 1st Cavalry Division moved forward from the bridgehead from two to eight miles and met stiff opposition in the Pakchon area.

12th November.—Allied aircraft attacked enemy troops and supply lines, with excellent results. No further reports were received.

13th November .- U.S. Marines advanced further towards Changjin reservoir.

Superfortresses destroyed a span of the remaining rail and road bridge over the Yalu, and attacked the railway leading to the Chongchon front from Manchuria. Fighter-bombers attacked troops moving South towards Huichon. The Allied Air Force reported the destruction of 48 Russian-type aircraft between 1st and 11th November.

14th November.—In East Korea the South Korean Capital Division and the U.S. 7th Division continued to advance. A regiment of U.S. Marines captured Hagaru at the southern end of the Changjin reservoir. In the West United Nations forces bettered their positions in a short advance. The Air Force bombed bridges at Sinuiju which had suffered previous damage; troop movements and supply routes were also attacked.

15th November.—In the centre South Korean troops under heavy attacks fell back four miles South-East of Tokchon. In the West patrols of the U.S. 1st Cavalry and 24th Divisions with the British Commonwealth 27th Brigade advanced several miles North-East of Pakchon without opposition. Incendiary bombs were dropped by B.29s on a border communication centre.

16th November.—In the East an amphibious counter-attack on the South Korean Capital Division was broken up from the sea and air, and the U.S. 7th Division advanced to within 20 miles of the border. U.S. Marines pushed on West of Changjin reservoir. In the West United Nations troops advanced 4 miles and units of the British 29th Brigade reached the forward area. The port of Hungham on the East coast was opened for supplies. Turkish troops policing Taegu area moved North, being replaced by Siamese. British casualties up to 16th November were given as 214 (51 dead, 158 wounded, 5 missing) while American casualties to 10th November were reported as 28,881 (4,798 dead, 19,740 wounded, 4,343 missing).

17th November.—Slight advances were made by United Nations troops in the East and centre, while in the West the U.S. 24th Division advanced 6 miles beyond Pakchon. Considerable guerilla activity was reported in the area between Inchon, Pyongyang and Chorwon.

18th November.—The cautious advance all along the United Nations line continued.
19th November.—Further slight advances were made and, in the centre, the South Koreans re-captured Tockhon. Guerilla activity behind the lines increased and Chunchon, 50 miles from Seoul, was reported to be in their hands.

20th November.—A column of the U.S. 7th Infantry Division advanced to within two miles of the border. British Royal Marine Commandos joined the U.S. Marines round Changjin reservoir. In the West the U.S. 1st Cavalry Division were attacked. The 1st Battalion Northumberland Fusiliers of the British 29th Brigade arrived in Korea.

21st November.—Troops of the U.S. 7th Infantry Division reached the Manchurian border at Hyesanjin.

22nd November.—The South Korean Capital Division advanced to within 12 miles of Chongjin on the North-East coast. In the Changjin area U.S. Marines encountered opposition North of the reservoir. In the North-West the U.S. 1st Cavalry and the South Korean 1st Divisions encountered enemy patrols some miles North of Pakchon.

23rd November.—The front was quiet.

24th November.—In a general offensive launched along a 60-mile front in the North-West, United Nations forces made gains of up to 8 miles. The attack was preceded and supported by considerable assistance from the air, Superfortresses dropping 3,500,000 fire

bombs on support targets. In the North-East the South Korean Capital Division reached the hills 3 miles West of Chongjin. A Chinese division appeared 40 miles West of Hungnam. A Chinese division was also located opposite the U.S. Marine Division, West of the Changjin reservoir.

25th November.—Chinese and North Koreans launched a sudden counter-attack from an area 25 miles East of Tokchon against the junction between the United Nations Eastern and Western forces, and penetrated to a depth of six miles. Simultaneously a force of some 10,000 guerillas made an advance towards Seoul from the East. Elsewhere the United Nations general advance continued. In the North-East, the South Korean Capital Division reached the port of Chongjin, and in the North-West Chongju was taken by the U.S. 24th Division.

26th November.—The South Korean Capital Division continued to advance beyond Chongjin in the North-East, while their 3rd Division also moved forward further inland. The enemy counter-attack continued in the North-West and the South Korean II Corps on the right of this line, were driven back 11 miles, Tokchon being recaptured by the enemy; the U.S. 2nd and 25th Divisions in the centre were also attacked and forced to withdraw.

27th November.—In the North-East the South Korean Capital Division met strong tank-led columns and were forced back several miles. U.S. Marines were halted by strong resistance West of the Changjin reservior. The enemy counter-attack in the North-West continued against the three South Korean and the U.S. 2nd and 25th Divisions, while on the extreme left the U.S. 24th Division withdrew from Chongju to conform.

28th November.—Chinese Communist troops were reported to be penetrating a gap near Tokchon in large numbers. General MacArthur, in a special United Nations communique, stated that an aggregate of over 200,000 Chinese troops was arrayed against the United Nations forces in North Korea, with heavy reinforcements concentrated over the border and constantly moving forward. Enemy attacks on South Korean divisions on the right and left flanks of the North-West front drove them back in confusion, causing the U.S. 2nd and 25th Divisions to withdraw also, to avoid exposing their open flanks. Continuous attacks by United Nations aircraft failed to halt the enemy's advance.

29th November.—Chinese and North Korean troops commenced an attack in North-East Korea, endangering the South Korean Capital Division and the U.S. 7th and Marine Divisions, with the last named of which British Marines were operating. The enemy's main counter-attack in the North-West continued and they reached the outskirts of Kunu. The Turkish Brigade, attacked five miles South of Kunu. held their ground and dug in. British troops were in action on the right flank, helping to stop the gap left by the collapse of the South Korean II Corps.

30th November.—In the North-East the Chinese, using tanks, launched a heavy attack against the United Nations X Corps and seized seven miles of the supply route from Hamhung to the Changjin reservoir, isolating the U.S. 1st Marine Division on the West of the reservoir and part of the U.S. 7th Infantry Division on the East side. Enemy troops were also reported in the U.S. 3rd Division sector, 25 miles South-West of the reservoir. In the North-West, after the U.S. 24th and the South Korean 1st Divisions had withdrawn from the North bank of the Chongchon river and had joined the main body on a new line between the river and Pyongyang, a lull in the fighting occurred. The British 29th Brigade from reserve took its place in the new line. The Airfield at Sinanju was evacuated by United Nations Air Force.

rst December.—In the Changjin area U.S. troops continued to fall back on both sides of the reservoir. South of the Chongchon river, where United Nations troops were withdrawing to a new line the enemy were reported to be building up their forces for a renewed attack. The United Nations Air Force bombed and attacked enemy troops crossing the Chongchon. Guerillas attacked the highway 70 miles South-East of Pyongyang. General MacArthur's Headquarters reported that there were some 500,000 Chinese troops in North Korea.

2nd December.—In the North-East, on X Corps front, elements of the U.S. 7th Division fought their way back along the East side of the Changjin reservoir to Hagaru, but the enemy were reported to be 15 miles North and 20 miles North-West of Hamhung. In the North-West on the Eighth Army front, the enemy, within 25 miles of Pyongyang, were pushed back by the U.S. 1st Cavalry Division. Guerillas became increasingly active East and South of Pyongyang.

3rd December.—In the East enemy troops were reported to be 15 miles from Hamhung, and thought to be in contact with the U.S. 3rd Division, while the U.S. Marine and 7th Divisions continued their fight round the Changjin reservoir towards Hagaru. In the West columns of United Nations troops moved South through Pyongyang covered by the U.S. 1st Cavalry Division and the 29th British Brigade.

The Prime Minister—Mr. Attlee, left by air for the United States for consultations with the President—Mr. Truman.

4th December.—Fighting continued in the Changjin reservoir area, though enemy pressure on the U.S. 1st Marine and 7th Divisions eased somewhat during the day. The enemy advance towards Hamhung and Hungnam gained ground, while a wheel by enemy forces from the central sector towards Wonsan was reported. In the West, Pyongyang airfield was abandoned and the evacuation of the city, previously commenced, was continued. United Nations troops, including the British 29th Brigade, held an arc some 10 miles North of the town.

5th December.—Chinese troops occupied Pyongyang and suffered heavy casualties from the United Nations Air Forces in so doing. The British 29th Brigade were among the last to leave the city. In the North-East attacks on the U.S. 1st Marine and 7th Divisions continued. The U.S. 3rd Division were heavily attacked by Chinese 15 miles West of Hamhung.

6th December.—It was reported that 5,000 casualties had been flown out from Hagaru airstrip during the last few days. An unconfirmed report stated that the port of Wonsan was being evacuated. The Eighth Army halted its retreat on a new line between Pyongyang and the 38th parallel. A concentration of enemy troops at Koksan was heavily bombed.

7th December.—In the North-East, rearguards of the South Korean Capital and 3rd Divisions were embarked at the port of Nanam, the main bodies having withdrawn by road. Two Regiments of the U.S. Marine Division with the Royal Marine Commando Unit were reported to have reached Kotori, 8 miles nearer the coast, in an endeavour to fight their way out from Hagaru to the port of Hungnam. At Kotori they joined the IstMarine Regiment and elements of the U.S. 7th Division. A force of the U.S. 3rd Division which set out from the coast to aid them, was held up after an advance of 8 miles. The report regarding evacuation of Wonsan was confirmed. In the West the Chinese attacked both ends of the Eighth Army's new line between Koksan and a point South of Chinnampo, forcing the South Korean 6th Division at the eastern end to withdraw and advancing slightly South of Chinnampo.

8th December.—The U.S. 1st Marine Division with the 41st Royal Marine Commando Unit and elements of the U.S. 7th Division left Kotori and made further headway towards Hamhung and Hungnam; the relief column from the U.S. 3rd Division was reported to be within 6 miles of them. On the Eighth Army front no major engagements occurred. Superfortresses bombed Changjin.

9th December.—The relief force from Hamhung linked up with the column heading for the coast from Kotori. The evacuation of Wonsan was completed. In the West the Eighth Army commenced to withdraw towards the 38th parallel.

10th December.—The first part of the U.S. 1st Marine and 7th Divisions with the 41st. Royal Marine Commando Unit reached Hungnam early in the morning, the remainder arriving in the afternoon protected by a rearguard of the U.S. 3rd Division and fighter aircraft. On the Eighth Army front troops withdrew to the South of the 38th parallel and there was

little contact with the enemy. United Nations aircraft were active in North Korea, enemy troops, trains, marshalling yards, bridges and supply areas being attacked

The New Zealand contingent for Korea, their 16th Field Regiment of Artillery, sailed

from Wellington.

11th December.—News from the Eighth Army front was meagre. General MacArthur, on his return to Tokyo after a tour of the Western and North-Eastern fronts said, that he considered the command to be relatively secure for the time being.

12th December.—Withdrawal by sea of all United Nations forces in North-Eastern Korea through the port of Hungnam commenced. The U.S. Marine Corps reported that casualties in their 1st Marine Division during the fighting in North-East Korea were between 3,000 and 3,300 including missing. In the West Chinese and NorthKorean troops were reported to be in the Haeju area 70 miles South of Pyongyang. U.S. B.26 bombers attacked targets North and South of Pyongyang.

The Prime Minister, Mr. Attlee, returned from his visit to the United States.

13th December.—The withdrawal by sea of all United Nations forces in North-Eastern Korea through the port of Hungnam entered its second day, covered by troops holding a semi-circular line about 15 miles inland from Hamhung, and supported by numerous aircraft and the guns of warships.

A battalion Princess Patricia's Canadian Light Infantry arrived at a Japanese port.

14th December.—United Nations troops covering the evacuation from Hungnam shortened their perimeter towards Hamhung. The Chinese attacked the perimeter during the night but in no great force. There was an increase in activity by enemy aircraft.

15th December.—The Chinese commenced an attack on the Hamhung-Hungnam beachhead, directed chiefly against the U.S. 3rd Division, 6 miles South-West of Hamhung. On the Eighth Army front the lull in fighting continued, except for clashes of South and North Koreans at Chunchon just South of the 38th parallel.

16th December.—The Chinese occupied Hamhung after an orderly withdrawal by United Nations forces. North Koreans continued their attacks in the Chunchon area.

17th December.—Enemy pressure on the defences of Hungnam was maintained and warships assisted the defence. North Koreans attacked both flanks of the Eighth Army, but counter-attacks by South Koreans partly restored the situation. No contact between the Eighth Army and the Chinese occurred.

18th December.—The enemy were reported to have renewed their attacks on Hungnam without success. The Eighth Army were still out of touch with the Chinese.

The 2nd Battalion, Princess Patricia's Canadian Light Infantry disembarked at Pusan.

19th December.—The main airfield near Hungnam was abandoned by United Nations forces, a smaller runway being retained inside the beachhead. U.S. and Russian-made aircraft had a minor encounter near Sinuiju.

An offer by Colombia of a battalion of infantry for Korea was accepted.

20th December.—North Korean troops attacked the South Korean forces on a 30 mile front South of the 38th parallel, in the Chunchon area. Aircraft of a carrier group flew more than 200 sorties in support of the beachhead at Hungnam, and British aircraft from H.M.S. "Theseus" attacked military targets in the Chinnampo area on the West coast.

21st December.—The beachhead at Hungnam was contracted by the blowing up of the bridge between the town and the main airfield. The enemy were shelled and bombed continuously to prevent attacks on the perimeter. American jet aircraft had another minor encounter with Russian-made jets. Superfortresses dropped 1,000 lb. bombs on North Korean traffic centres.

22nd December.—Probing attacks in the Hungnam area were successfully dealt with by the U.S. 3rd Division. On the Eighth Army front South Korean troops withdrew slightly in the Chunchon area in the face of enemy attacks. Superfortresses bombed military areas in North Korea.

23rd December.—In an air skirmish 6 Russian-made jet fighters were shot down by U.S. fighters which suffered no loss.

Lieut.-General Walton H. Walker, Commander of the Eighth Army in Korea, died after a motor accident near Seoul.

24th, 25th and 26th December.—The United Nations X Corps completed its withdrawal from Hungnam beachhead on 24th December, and was incorporated in the Eighth Army as a third Corps. Reports indicated concentration of Chinese troops 40 miles North of Seoul.

Lieut,-General Mathew B. Ridgway arrived in Korea on 26th December to take command of the Eighth Army.

27th December.—Intelligence reports stated that 10 or 11 small reorganized North Korean divisions faced the Eighth Army front, closer than the Chinese forward troops who, according to General MacArthur's Headquarters estimate, number 277,000. United Nations aircraft in strength continued to bomb Chinese and North Korean troops, their supply centres and their lines of communication.

28th December.—Reports stated that some Chinese troops crossed the 38th parallel and entered Kaesong, some 10 miles from the United Nations line behind the Imjin river.

29th December.—North Koreans attacked the South Korean defences 25 to 35 miles from the East coast, and forced withdrawals of 2,000 to 6,000 yards. United Nations bomber and fighter aircraft kept up their bombardment of Communist troops on both sides of the 38th parallel.

30th December.—Allied aircraft continued their attacks, dropping 130 tons of bombs on Chorwon, while jet fighters were involved in a fight with Russian-type M.I.G.15s near the Manchurian border.

31st December.—The enemy used artillery for the first time for several weeks, firing a limited number of rounds on the front North of Seoul; they also deepened their previous incursions at the Eastern end of the line and made further advances on the Western side.

1st January.—Chinese and North Koreans attacked in force on a 20-mile front against the Eighth Army's left flank. They crossed the frozen River Imjin, East of Kaesong and advanced to within 20 miles of Seoul. Simultaneously, the North Koreans launched a diversionary attack in East Central Korea.

2nd January.—Three North Korean Divisions made deep penetrations in the United Nations lines in the Eastern sector of the front. In the West the Chinese reached Uijongbu. Chunchon and Uijongbu were later reported to have been abandoned, Eighth Army advanced troops having withdrawn along the whole front. Allied Air Forces made 812 sorties inflicting heavy casualties on the enemy.

3rd January.—After violent enemy attacks from the North-East and North-West against the U.S. 24th and 25th Divisions and the British Commonwealth 27th Brigade, the Eighth Army withdrew from Seoul to defensive positions South of the town.

4th January.—The port of Inchon was evacuated by protecting and service troops who, with their equipment, were taken off by warships. Allied aircraft made 193 attacks against enemy convoys moving South.

5th January.—The Eighth Army was stated to be out of touch with the enemy. It was also reported that a Chinese force had reached a point 23 miles North of Wonju, in an endeavour to cut the Allies' line of communication with Pusan.

6th January.—Wonju was partly surrounded by Chinese and North Koreans, but contact with United Nations troops was light.

7th January.—Wonju was occupied by the enemy, but the town was re-taken by a counter-attack later in the day. Allied bombers and fighter-bombers made many attacks on enemy targets, mostly in the Seoul area.

British warships shelled enemy lines of communication on the West coast, and naval aircraft attacked an enemy concentration on the East coast.

8th January.—Wonju was abandoned by the Allies who also withdrew from Osan-28 miles South of Seoul.

9th January.—Counter-attacks by United Nations forces, including French troops, resulted in the recovery of some ground South-West of Wonju.

10th January.—A strong patrol of the U.S. 2nd Division re-entered Wonju which they found to be unoccupied, and then withdrew to their main body which had occupied hills just South of the town. In the Western sector a counter-attack by United Nations troops East of Yoju drove back an enemy battalion.

1

11th January.—Troops of the U.S. 2nd Division with French and Dutch contingents continued to hold their positions just South of Wonju.

12th January.—United Nations troops supported by aircraft attacked two North Korean regiments who had seized a hill dominating their position South of Wonju. The enemy were driven off and the hill was re-occupied. Subsequently, French troops stormed an adjoining hill commanding the road to Chungju. The enemy attacked vehicles 37 miles South of Wonju which were carrying supplies to the U.S. 2nd Division. Allied aircraft dropped 215 tons of food, ammunition and stores to troops in this sector.

13th January.—United Nations troops held their positions South of Wonju in the face of a series of heavy enemy attacks.

14th January.—The U.S. 2nd Division with French troops still retained their positions. The enemy, however, infiltrated and kept up their flanking movements to the South-East.

15th January.—In a surprise attack on a nine-mile front Allied troops in the Western Sector recaptured Osan, and Kumyangjang a few miles to the North-East. Only slight resistance was encountered at first, but at dusk the Chinese attacked the U.S. 3rd Division. Allied figher-bombers and light bombers inflicted severe casualties on the retreating enemy.

16th January.—The U.S. 2nd Division and attached troops withdrew from the Wonju salient and took up a previously established defence line. In the Western sector a strong United Nations reconnaissance force entered Suwon 17 miles South of Seoul, but withdrew after dark to positions along the main road. The U.S. 3rd Division also withdrew from Kumyangjang after finding the enemy entrenched just beyond the town. No real contact with the enemy was made along the entire front during the day.

17th January.—Apart from patrol action there was no contact between the opposing armies. Allied aircraft harassed the enemy, Superfortresses dropping 176 tons of bombs on Kaesong and 76 tons on Pyongyang, while light bombers attacked convoys during the night; fighters and fighter-bombers and carrier-based aircraft attacked targets just behind the enemy's lines.

18th January.—Patrol activities continued, otherwise there was no change in the situation, though evidence indicated that the enemy was concentrating for a new major attack.

19th January.—A strong United Nations patrol re-occupied Wonju and, South-East of that town, two regiments dispersed a strong body of the enemy, inflicting heavy casualties. Allied aircraft flew more than 200 sorties, attacking Communist troops in the Seoul area, bombing anti-aircraft positions and partly destroying a railway bridge near Huichon.

20th January.—The United Nations troops in Wonju withdrew after being attacked from three sides by the enemy.

21st January.—Allied troops again entered Wonju, driving out the enemy, but retired later under enemy pressure. To the South-East severe casualties were inflicted on the North Korean 2nd Division. In the Western sector a United Nations force which had been making probing attacks was forced to withdraw. Superfortresses dropped 176 tons of bombs on supply centres and fighter aircraft attacked troop concentrations. Forty enemy jet fighters were encountered during the day.

GENERAL SERVICE NOTICES

NORTH ATLANTIC TREATY AND WESTERN UNION ORGANIZATIONS

RESULTS OF RECENT MEETINGS OF COUNCILS.—The results of the recent meetings of the Councils of the North Atlantic Treaty and Western Union Organizations, which ended in Brussels on 21st December, included:—

- 1. The appointment of General Eisenhower as Supreme Allied Commander in Europe.
- 2. A proposal to appoint a European Director of Production as a counterpart to the military Commander.
- An outline plan for Western German participation in defence, to be discussed with Western Germany.
- 4. The merging of the military organization of the Western Union in that of the North Atlantic Treaty.

General Eisenhower arrived at his provisional European Headquarters in Paris on 7th January, to commence a tour of all the European capitals of the North Atlantic Treaty Organization Countries.

The Forces initially coming under General Eisenhower's command will be the British Army of the Rhine; the United States Seventh Army in Germany; the three French Divisions in Germany and Austria; the Belgian, Danish and Norwegian Brigades in Western Germany; and the British and United States garrisons in Austria, Trieste and Berlin. The Italian Defence Minister—Signor Pacciardi, announced in Rome on 5th January, that three Italian Divisions would be formed as Italy's initial contribution and that they would be placed at General Eisenhower's disposal.

Mr. W. R. Herod, President of the International General Electric Company, was appointed Co-ordinator of North Atlantic Defence Production by the North Atlantic Deputies on 15th January.

It was announced in Bonn on 23rd December, that the German experts who would enter into discussions with the Allied military authorities on the question of European defence would be Herr Theodor Blank, Adviser on Security Questions, General Speidel, former Chief of Staff to General Rommel, and General von Heusinger, formerly Director of Operations in the German High Command.

The merging of the military side of the Western Union in the North Atlantic Treaty Organization does not mean the abolition of the military obligations engaged in under the Brussels Treaty; these have always been rather more immediately compelling than those under the Atlantic Treaty. Moreover, the Brussels Treaty was made for 50 years; the North Atlantic Treaty is for 20 years.

Anti-Aircraft Commanders Conference.—The European Countries of the North Atlantic Treaty Organization have been building up their Anti-Aircraft defences based on experience gained in Great Britain during the last war.

The General Officers Commanding the Anti-Aircraft Commands of Great Britain, Belgium, Denmark, France, Italy, the Netherlands, Norway, and representatives from the United States forces in Europe and Western Union Headquarters at Fontainebleau held a conference in London in December to discuss various air defence problems affecting their respective Countries and, thereby, to advance the integration of the North Atlantic Treaty Organization air defence system. The conference was held under the Chairmanship of the British Director of Artillery—Major-General S. B. Rawlins, C.B., C.B.E., D.S.O., M.C., Air Marshal Sir Basil Embry, K.B.E., C.B., D.S.O., C.-in-C. Fighter Command, attended on the first day when subjects affecting Air Forces were discussed.

M

GREAT BRITAIN

NEW PLANS TO STRENGTHEN DEFENCE

The Prime Minister—Mr. Attlee, announced in the House of Commons on 29th January the Government's new plans for the strengthening of Britain's defences. The following measures were included in his statement:—

ROYAL NAVY.—The call-up of about 6,000 men of the Royal Fleet Reserve for 18 months' service with the Royal Navy. About 600 officers from the emergency list of the Royal Navy, the Royal Naval Volunteer Reserve or the Royal Naval Volunteer (Supplementary) Reserve will also be needed for 18 months; it is hoped that a good proportion of the Reservists concerned will be obtained by calling for volunteers.

ARMY.—The call-up of up to 235,000 Army Reservists, officers and men, for 15 days' training this Summer. Most of the men to be Class Z Reservists who were called up for service before the end of 1948. (The generic term "Z" Reservist includes men in the classes: Z, Z(T), W and W(T).)

ROYAL AIR FORCE.—The call-up for 15 days' training of about 10,000 officers and men of the Class G Reserve who will be required to man the control and reporting organization in an emergency. Three months continuous training for about 2,300 members of the Royal Auxiliary Air Force fighter squadrons, and the recall of more than 1,000 aircrew Reservists of the Regular and Volunteer Reserves of the Royal Air Force. In addition, about 200 Regular and Volunteer Reservists may be recalled for flying instruction duties for periods up to 18 months, and it is hoped that a good proportion of these will be obtained by calling for volunteers.

New Equipment.—The introduction as rapidly as possible of new types of equipment such as fighter aircraft and combat vehicles.

BUILDING AND CONVERSION OF SHIPS AND SUPPLY OF WEAPONS.—An accelerated programme for building and converting ships to meet submarine and mining threats, and improvements in the supply of anti-tank and anti-aircraft weapons and equipment.

CIVIL DEFENCE.—The acceleration of measures which directly support the efficiency of the Armed Forces, including communications and the control network and the warning system.

The building up of stocks of essential equipment required by the Civil Defence Services.

Cosr.—The expenditure of about £1,300,000,000 in the financial year 1951-52, to cover the whole field of military and civil preparations for defence, and a possible total Defence Budget of £4,700,000,000 over the next three years.

The Prime Minister also stated that for the time being it will be necessary to continue the practice of retaining Regulars beyond the normal expiry of their Colour service, which all three Services found it necessary to adopt at the beginning of the fighting in Korea; but that such additional service will not exceed 18 months in the Royal Navy, between 12 and 18 months in the Army, and 12 months in the Royal Air Force.

Legislation would be introduced to give effect to the proposed call-up of the Army Class Z and the Royal Air Force Class G Reservists.

IMPERIAL DEFENCE COLLEGE

The following were selected to attend the 1951 course, which started in January:—ROYAL NAVY.—Captain W. A. Adair, O.B.E., R.N.; Captain T. V. Briggs, O.B.E., R.N.; Captain D. E. Holland-Martin, D.S.O., D.S.C., R.N.; Captain J. S. S. Litchfield, O.B.E., R.N.; Captain H. C. D. Maclean, D.S.C., R.N.; Captain R. S. Wellby, D.S.O., R.N.; Captain W. J. W. Woods, D.S.O., R.N.; Captain (S) V. E. Rusby, O.B.E., R.N.; Captain (E) I. G. Maclean, O.B.E., R.N.

Army.—Brigadier C. L. Richardson, C.B.E., D.S.O.; Brigadier K. C. Cooper, D.S.O., O.B.E.; Brigadier E. K. G. Sixsmith, C.B.E.; Brigadier L. R. Mizen, C.B.E.; Brigadier I. L. H. Mackillop, C.B.E.; Brigadier C. R. Price, C.B., C.B.E.; Brigadier G. R. D. Musson, C.B.E., D.S.O.; Brigadier G. Peddie, D.S.O., M.B.E.; Brigadier J. D'A.

Anderson, C.B.E., D.S.O.; Colonel J. W. Hackett, D.S.O., M.B.E., M.C.; Colonel R. N. Anderson, C.B.E., D.S.O.

ROYAL AIR FORCE.—Air Commodore C. E. Chilton, C.B., C.B.E.; Air Commodore H. P. Fraser, C.B.E., A.F.C.; Air Commodore J. G. Franks, C.B.E.; Air Commodore W. L. Freebody, C.B., C.B.E., A.F.C.; Group Captain E. C. Bates, C.B.E., A.F.C.; Group Captain D. W. Lane, C.B.E.; Group Captain K. J. McIntyre, O.B.E.; Group Captain H. L. Maxwell, C.B.E., D.S.O.; Group Captain A. G. Adnams.

Canada.—Major-General N. E. Rodger, C.B.E.; Brigadier J. V. Allard, C.B.E., D.S.O., E.D.; Air Commodore J. G. Kerr, C.B.E., A.F.C.; Mr. W. R. Wright, D.S.O., Secretary Defence Committee.

Australia.—Captain G. G. O. Gatacre, D.S.C., R.A.N.; Colonel R. G. Pollard, D.S.O., D.S.C.; Group Captain H. G. Acton, R.A.A.F.; Mr. A. J. Eastman, 1st Secretary, Department of External Affairs.

New Zealand.—Brigadier R. C. Queree, C.B.E., D.S.O.

SOUTH AFRICA.—Brigadier J. T. Durrant, C.B., D.F.C.

PAKISTAN.—Major-General K. M. Sheikh; Major-General Nazir Ahmed Khan, M.B.E.; Mr. Akhdar Hussain.

INDIA.—Brigadier P. S. Gyani, O.B.E., Indian Army; Air Commodore A. M. Engineer, D.F.C., Indian Air Force; Mr. Saroop Krishen, Indian Civil Service.

CIVIL SERVICE (FOREIGN SERVICE).—Mr. H, S. Stephenson, O.B.E., F.S. Officer Grade 7; Mr. W. H. Young, F.S. Officer Grade 7.

CIVIL SERVICE (COLONIAL SERVICE).—Mr. W. C. B. Burgess, Cadet Officer C. L.; Mr. C. R. Forsyth, Assistant Secretary.

Home Civil Service (Administors).—Mr. N. J. Abercrombie, Assistant Secretary, Admiralty; Mr. H. H. Hobbs, Assistant Secretary, War Office; Mr. D. E. H. Peirson, Assistant Secretary, Ministry of Supply; Mr. N. Singleton, Assistant Secretary, Ministry of Labour and National Service; Mr. K. L. Stock, Assistant Secretary, Ministry of Fuel and Power; Mr. C. H. Wykes, Assistant Secretary, Ministry of Civil Aviation; Mr. B. P. H. Dickinson, Assistant Secretary, Ministry of Transport.

HOME CIVIL SERVICE (SCIENTISTS).—Mr. D. H. Chaddock, S.P.S.O., Ministry of Supply; Mr. E. Leader Williams, P.S.O., Home Office.

United States.—Colonel Clarence F. Hegy, U.S.A.F.; Colonel Theodore S. Riggs, U.S. Army; Mr. Andrew B. Foster.

STRENGTH OF THE ARMED FORCES

The Ministry of Defence announced on 4th December that the total strength of the Armed Forces on 1st October, 1950 (including National Service men, Women's Services, Nurses and V.A.D.s) was 708,200, compared with 725,000 on 1st January, 1950. The total was made up as follows:—

			National .			
			Regulars	Service	Total	
Royal Navy			128,600	6,300	134,900	
Army		***	200,400	174,800	375,200	
Royal Air Force	***	***	127,400	70,700	198,100	

The Auxiliary and Territorial Forces numbered 137,800, compared with 102,100 on 1st January, 1950.

The number of civilians directly employed on work for the Forces was 227,900.

RECRUITING

Figures for recruitment to the armed forces in the third quarter of 1950, issued on 20th November by the Ministry of Defence, show that the figures for September, after the pay increases had been announced at the end of August, were nearly double those recorded for August. The figure for September for men in all services was 7,679, compared

with 3,999 in August and 3,288 in July. The total for men and women recruits was 8,414 in September and 4,542 in August.

The numbers of men recruited under regular engagements, the bounty scheme, and special short service engagements for the three services in the third quarter, with the figure for the second quarter following in brackets, were:—

Royal Navy and Royal Marines					2,311(2,467)	
Army						6,592(4,112)
R.A.F.		***		***	***	6.063(3.500)

These figures exclude men on regular engagements who extended their period of service.

Similar figures for women were :--

W.R.N.S.	***	***	***	***	351 (305)
W.R.A.C	***		***	***	663(654)
W.R.A.F.				***	722(666)

NATIONAL SERVICE REGISTRATIONS

The Ministry of Labour and National Service announced on 29th December that, in order to meet the needs of the Forces, the next two quarterly registrations of young men for national service, which were announced last August to take place on 3rd March and 2nd June, 1951, will be brought forward to 3rd February and 5th May, respectively. The next two registrations will accordingly be as follows:—

Men born between (all dates inclusive) 1st January and 31st March, 1933, registration

day, 3rd February; born between 1st April and 30th June, 1933, 5th May.

It is not yet possible to fix the dates of the subsequent quarterly registrations in 1951,

It is not yet possible to fix the dates of the subsequent quarterly registrations in 1951, which would ordinarily take place early in September and December, but an announcement will be made as soon as possible.

CIVIL DEFENCE EXERCISE

The Home Secretary attended a Civil Defence Exercise at Headquarters Eastern Command, Hounslow, which was held on the 5th and 6th December, under the direction of General Sir Gerald Templer, G.O.C.-in-C., Eastern Command.

The object of the exercise was to determine the manner in which military assistance could best be given in the event of an air attack on London.

Other Ministers who attended included the Secretary of State for War. In addition, representatives from the Air Ministry, L.C.C., all London boroughs and heads of public undertakings were present.

The Prime Minister had intended to be present but had to cancel the arrangement because of his visit to Washington.

FORMATION OF HOME GUARD IN EVENT OF EMERGENCY

Mr. Shinwell, the Minister of Defence, announced in the House of Commons on 15th November, that the Government had decided that a Home Guard should be raised on a part-time basis in a future emergency; that it would not be enrolled before the actual emergency arose; but that planning measures would be put in hand at once, including the appointment of a Home Guard Adviser in each Army Command at home. The Home Guard, he said, would form part of the Armed Forces of the Crown, and its functions would be broadly similar to those of the Home Guard of the last war i.e., mainly to support the Regular Forces by relieving them of certain subsidiary tasks, and to assist the civilian authorities in a wide range of duties. It would be raised and operated on a territorial basis and would be administered by the War Office through the medium of Territorial and Auxiliary Forces Associations, command being exercised through normal service channels. Mr. Shinwell added that there would be no enrolment in advance and that it was impossible to foresee the precise allocation of manpower between the Home Guard and Civil Defence; but he urged that no one should refrain from volunteering for part-time work in the Civil Defence services or in the Special Constabulary on the ground that he might more suitably serve later on in the Home Guard, since it was intended to provide an opportunity to transfer to the Home Guard in the event of its formation.

DOMINIONS AND COLONIES CANADA

DEFENCE Costs.—Total cash appropriations for defence during the year have amounted to \$567 millions. Of this amount \$172 millions were earmarked for equipment, \$81 millions for construction and maintenance of properties, \$24 millions for research, and almost all the balance of \$290 millions for personnel costs.

EQUIPMENT FOR THE NETHERLANDS.—On 25th October, the Cabinet approved the immediate shipment to the Netherlands of armament equipment for one infantry division.

COMMISSIONS FOR UNDERGRADUATES.—Now that practically all students who served in the recent War have completed their courses, it has been decided to extend the arrangements whereby such undergraduates entering their final university year could obtain Commissions in the Active List of the Royal Canadian Navy, the Canadian Army and the Royal Canadian Air Force.

The Defence Minister—Mr. Claxton, announcing this decision on 24th October, stated that undergraduates without war service who had entered their final year during the current college term in good standing, who had completed last Summer's training with the Navy, Army or Air Force, and who had other qualifications, could enter the Regular Forces, receiving the pay of a sub-lieutenant or equivalent rank in the Army and Air Force. Graduates doing post-graduate work were also eligible. On completion of their courses next May they will continue in the Regular Forces for a period of four years or on a permanent career basis.

The university plan also extends to a limited number of students in science, engineering, etc., who have the same qualifications as those for the Armed Forces, but who wish to have a career with the Defence Research Board.

COMMISSIONS FROM THE RANKS.—Other ranks undergo screening with a view to selection of those having the necessary education, aptitude and qualities of leadership. Subsequent training is by one of several means, including attendance at Canadian Service Colleges for men under 20, attendance at a university for men over 20, or technical training in trades for tradesmen with unusual qualifications.

AUSTRALIA

New Minister of Defence.—The Hon. P. A. McBride, M.P., has become Minister of Defence in succession to the Hon. E. J. Harrison, M.P., who has become Minister for the Interior.

Conscription.—The Minister for Labour and National Service introduced a Bill in the House of Representatives on 21st November providing for National Service by youths aged 18 in the Defence Forces. The first call-up for training he said, would be of youths attaining that age between 1st November, 1950, and 31st March, 1951, and it was hoped to have the first trainees available for service by 1st May next. The Government planned to train 13,500 in the first year, with progressive increases in the following years as additional facilities for training became available.

INDIA

NEW TREATY WITH SIKKIM

A new treaty between India and Sikkim, providing for the continuance of the latter as a Protectorate of India enjoying autonomy in regard to its internal affairs, was signed at Gangtok on 5th December. Sikkim is bounded on the North and East by Tibet, on the South by Western Bengal and on the West by Nepal.

FOREIGN

EGYPT

ENDING OF STATE OF WAR WITH GERMANY

The Egyptian Ministry of Foreign Affairs announced on 7th December that Egypt had terminated the state of war with Germany. Egypt's declaration of war with Germany was made on 24th February, 1945.

FRANCE

Inspector-General of Armed Forces.—It was announced in Paris on 25th January, that General Juin had been appointed Inspector-General of the French Armed Forces, with authority over the Navy, Army and the Air Force. He will continue to be French Resident-General in Morocco.

COMMANDER-IN-CHIEF FRENCH OCCUPATION FORCES IN AUSTRIA.—It was announced in Paris on 12th October, that General Bertrand had been appointed Commander-in-Chief of the French Occupation Forces in Austria, in succession to General Béthouart the former French High Commissioner and Commander-in-Chief in that Country.

GERMANY

ARMING OF BERLIN WESTERN SECTOR POLICE

The British, American and French Commandants, in the interests of public security, have authorized the equipment of the Berlin Western Sector police with carbines, submachine guns and light machine guns, in place of the pistols and truncheons previously carried.

GREECE

STAFF CONTACTS WITH TURKEY

A mission of Greek staff officers, headed by General Kitrilakis, Deputy Chief of the Greek General Staff, arrived in Ankara early in December for conversations with the Turkish General Staff.

These conversations constitute a development of the contacts established some months ago between the two general staffs with the object of drawing up a common Turco-Greek agenda to be put forward at the forthcoming meetings between Turkish and Greek representatives and the Planning Committee for the Mediterranean of Atlantic Pact Countries. This is in accordance with the invitation extended to Turkey and Greece by Mr. Acheson on behalf of the Atlantic Pact Powers.

ITALY

THREE YEAR DEFENCE PLAN.—Measures for strengthening the Country's defences, both as regards the Armed Forces and for the tightening up of internal security, were approved by the Italian Cabinet on 23rd September, They comprised:—

1. A three-year defence plan involving an annual expenditure during this period of 50,000,000,000 lire (about £30,000,000), for building up the Regular Army to a

strength of 12 Divisions.

 An increase in the Carabinieri (police force) of 12,000, bringing it up to a total of 82,000, and an increase in the number of Carabinieri posts.

3. The formation of eight new mobile police battalions and of 30 new groups of

road and railway police.

The increased expenditure under the three-year defence plan will be met by the issue, in 1950-51 and 1951-52, of a new series of 5 per cent. Treasury Bonds, the proceeds of which will be made available for defence and for the general investment programme.

INCREASE IN DEFENCE BUDGET.—On 19th October, the Chamber of Deputies voted for increased defence appropriations of 100,000,000,000 lire, increasing the defence budget by 30 per cent. to a total of 434,000,000,000 lire, almost double that of any defence budget since the War.

CIVIL DEFENCE ORGANIZATION.—A Bill creating a Civil Defence Organization in the Ministry of the Interior was approved by the Cabinet on 26th September. It provided for the setting up of a Directorate-General of Civil Defence with responsibility for co-ordinating all aspects of Civil Defence; giving it authority to enrol full-time and part-time forces; empowering the Minister of the Interior to requisition man-power and property after the Government had proclaimed the existence of "a state of peril," and placing all the fire-fighting service under its control.

UNITED STATES AIRCRAFT DELIVERIES.—The first consignment of United States military aid to Italy under the Military Assistance Programme, comprising 40 aircraft

(28 Helldivers and 12 Mustangs), was landed at Brindisi on 17th September, from an American aircraft-carrier.

KOREA

For a diary of the War in Korea see page 148.

NEPAL

NEW TREATY WITH BRITAIN

A treaty of "perpetual peace and friendship" was signed at Katmandu on 30th October by the Prime Minister of Nepal, Maharaja Mohun Shumshere Jung Bahadur Rana, and the British Ambassador, Lieut-Colonel Sir George Falconer. This treaty replaced an earlier one of 1923, and was made necessary by the establishment of the Dominions of India and Pakistan in 1947, which had made some of the provisions of this earlier treaty no longer applicable. It does not affect the tripartite agreement of 1947, between Great Britain, Nepal and India, which permitted both Britain and India to continue recruiting Gurkhas for their armies.

NETHERLANDS

NEW DEFENCE MINISTER

Hr. Schokking resigned on 11th October and was succeeded as Defence Minister by Hr. H. L.'s Jacob on 15th October. In his first ministerial declaration on 16th October, Hr. 's Jacob stated that his principal task would be the training, re-equipment, and general strengthening of the Netherlands Army whose reconstruction since the end of the war was behind that of the Navy and Air Force; he stressed, however, that this policy would not mean any weakening in the Country's Navy.

TIBET

INVASION BY CHINESE

The proclaimed intention of the Chinese Communist Government to "liberate" Tibet during 1950, which had been laid down as a basic task of the Peoples Liberation Army on 1st January 1950, and which had been reaffirmed on 30th September by the Chinese Communist Premier and Foreign Minister, Chou En-lai, led to an invasion of Eastern Tibet by Chinese Communist forces in October. Strong protests were made by the Government of India to Peking, and an appeal by the Tibetans to the United Nations was received on 13th November.

Although few details of the Chinese invasion were available, it was authoritatively stated in New Delhi, and by the Tibetan mission in Kalimpong, that Chinese Communist troops had advanced into Tibet in several directions from the Chinese western provinces of Sikang and Tsinghai; that a number of frontier posts had been taken; and that the town of Chamdo, about 300 miles East of Lhasa, had been captured. Reports of a rapid Chinese advance were not confirmed, however, and the head of the Indian Mission in Lhasa reported to his Government on 13th November that the Chinese forces were still in the Chamdo area.

Although the Tibetan Army, nominally about 10,000 strong and equipped only with a limited quantity of small arms, could hope to offer little effective resistance to the Chinese, the Tibetan plateau with an average elevation of 12,000 feet above sea level offers very great physical difficulties to an invader. Much of Tibet is snowbound in the winter, and an invading force would have to traverse two of the highest passes in the World—Shargung-La (16,700 feet) and Tro-la (17,100 feet).

UNITED STATES

PROCLAMATION OF A NATIONAL EMERGENCY.—In a nation-wide broadcast on the evening of 16th December, President Truman announced his intention of proclaiming the existence of a national emergency in the U.S.A. in view of the international situation. After declaring that the danger "has been created by the rulers of the Soviet Union", the President gave assurances that the United States would "continue to uphold, and if necessary to defend with arms, the principles of the United Nations," and that it would continue to co-operate fully with the Countries of the North Atlantic Pact and other

free nations in collective defence and resistance to aggression. He also said that the United States had no aggressive aims, that it believed in settling international differences by peaceful means, and that, while it did not believe war to be inevitable, and would continue to take "every honourable step to avoid a general war," there would be no "appease-

ment" of any aggressor.

The President went on to announce plans for the expansion of the U.S. Armed Forces to about 3,500,000, and outlined plans for the rapid expansion of military production and of essential strategic materials. He gave a warning that the new national defence effort would mean longer hours, higher production goals, and increased taxation; and spoke of the measures to be taken to control prices, stabilize wages, and avoid the danger of inflation. In conclusion, the President announced his intention of establishing an Office of Defence Mobilization under Mr. Charles E. Wilson (president of the General Electric Company), and spoke of the preparations taken in the field of Civil Defence.

REACTIVATION OF SEVENTH ARMY IN WESTERN GERMANY.—The United States C.-in-C. in Europe—General Handy, announced on 24th November that the United States Seventh Army was being reactivated and would be placed under the command of Lieut.-General Eddy, Commanding General of the United States Army in Europe. It was stated that the first formations in the new Command would be the United States 1st

Infantry Division and the United States Constabulary Armoured Force.

DIRECTOR OF GUIDED MISSILES.—On 25th October, it was announced in Washington that General Marshall, the Secretary of Defence, had appointed Mr. Kaufman T. Keller, president of the Chrysler Corporation (Detroit), to the new post of Director of Guided Missiles for the Armed Forces, in which capacity he would co-ordinate all military activities connected with research into and development and production of guided missiles. The creation of this new post had been recommended by the Secretaries of the Navy, Army and Air Force and by the Joint Chiefs of Staff as a means of dovetailing the separate programmes of the various Services and of preventing waste and duplication.

CREATION OF A FEDERAL CIVIL DEFENCE ORGANIZATION.—On 1st December, President Truman signed an executive order creating a Federal Civil Defence Administration as an independent body, pending Congressional legislation to place it on a statutory basis. Civil Defence had formerly been a responsibility of the National Security

Resources Board.

COMFORTS FOR TROOPS IN KOREA

Many enquiries are being received by the War Office regarding sending of comforts to the Forces in Korea.

The troops in Korea have been provided with an adequate special scale of winter clothing in addition to their ordinary home scale. The War Office appreciates, however, that organizations or individuals may wish to send woollen or other comforts to Korea.

Arrangements have been made that packages not addressed to individuals but which are for general distribution or for particular units, may be despatched under War Office arrangements. Application should be made to: The Under Secretary of State, War Office (A.G.3.W), London, S.W.I, (Tel: GRO 8040, Ext. 181), for details of despatch, stating size and weight of package/s and general nature of contents.

The most acceptable gifts at present are: Balaclava helmets; mittens; scarves;

handkerchiefs; pipes; combs and fountain-pens.

ORDNANCE SURVEY MAPS

Serving members of H.M. Forces may obtain maps for their own personal use from the Ordnance Survey Office, Leatherhead Road, Chessington, Surbiton, Surrey, at reduced rates, viz: $-2\frac{1}{2}''$, 1'' and smaller scales at a discount of $33\frac{1}{8}$ per cent. and larger scales at a discount of 25 per cent. of the published prices. Orders should include a signed certificate that the maps are required for personal use only. Remittance should accompany the order. Postal charges are extra on all orders of less value than 10s.

NAVY NOTES GREAT BRITAIN

H.M. THE KING

His Majesty The King attended the third reunion dinner at the Savoy Hotel on 9th November, of the 1909 to 1913 term at the R.N. Colleges, Osborne and Dartmouth, of which he was a member.

The King has graciously consented to become Admiral of the Royal Naval Sailing Association.

AIDES-DE-CAMP TO THE KING.—Admiral Sir Arthur J. Power, G.C.B., G.B.E., C.V.O. to be First and Principal Naval Aide-de-Camp to His Majesty the King, vice Admiral Sir Henry Moore, G.C.B., C.V.O., D.S.O. on his retirement: the appointment took effect from 15th January.

The following officers have been appointed Naval Aides-de-Camp to the King from 8th November, 1950: Captain (E) R. W. V. Reeves, vice Captain (E) F. H. Kennedy, placed on the Retired List; Captain (E) W. F. Baily, vice Captain (E) G. L. M. Salter, placed on the Retired List.

Colonel J. T. Hall, O.B.E. has been appointed a Royal Marine Aide-de-Camp to the King from 6th December, 1950, vice Colonel S. G. B. Paine, O.B.E., A.D.C., placed on the Retired List.

PRINCESS ELIZABETH AND THE DUKE OF EDINBURGH

Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh left Malta on 3rd December, to pay a private visit to the King and Queen of Greece. The Princess took passage in the despatch vessel "Surprise" (Commander I. G. Steel, R.N.) in which Captain C. D. Bonham-Carter, R.N., embarked as Senior Officer of the escort which consisted of the destroyer "Chieftain" (Commander M. C. Giles, R.N.) and the frigate "Magpie" (Lieutenant-Commander the Duke of Edinburgh, K.G., R.N.). The three ships arrived in Phaleron Bay on the evening of 5th December and left on 12th December, arriving at Malta on the 14th.

The Duke of Edinburgh, specially commissioned in the name of His Majesty, on 23rd November, opened the new Legislative Council for Gibraltar. He returned to Malta next day to resume command of H.M.S. "Magpie."

FUNERAL OF THE KING OF SWEDEN

Admiral Sir Wilfrid R. Patterson, K.C.B., C.V.O., C.B.E. represented the Board of Admiralty at the funeral in Stockholm on 9th November, of King Gustav V of Sweden, who since 1908 had been an Honorary Admiral in the Royal Navy. Sir Wilfrid proceeded to Stockholm flying his flag in the destroyer "Finisterre" (Lieutenant-Commander J. F. House, R.N.).

BOARD OF ADMIRALTY

The King has been pleased, by Letters Patent under the Great Seal, bearing date the 11th day of December, 1950, to appoint the following to be Commissioners for Executing the office of Lord High Admiral of the United Kingdom:—

Right Hon. George Henry, Viscount Hall.

Admiral of the Fleet Bruce Austin, Baron Fraser of North Cape, G.C.B., K.B.E. Vice-Admiral Alexander C. G. Madden, C.B., C.B.E.

Vice-Admiral Sir Michael M. Denny, K.C.B., C.B.E., D.S.O.

Vice-Admiral the Right Hon. Louis F. A. V. N. Earl Mountbatten of Burma, K.G., G.C.S.I., G.C.I.E., G.C.V.O., K.C.B., D.S.O.

Vice-Admiral Maurice J. Mansergh, C.B., C.B.E.

Vice-Admiral Sir George E. Creasy, K.C.B., C.B.E., D.S.O., M.V.O.

Rear-Admiral Edward M. Evans-Lombe, C.B.
Lieutenant Leonard J. Callaghan, R.N.V.R.
Walter James Edwards, Esq.
Sir John Gerald Lang, K.C.B.

The Parliamentary Secretary, Mr. L. J. Callaghan, left London by air for Malta on 1st January, to embark in H.M.S. "Gambia" to watch a group anti-aircraft firing competition from units of the Mediterranean Fleet. He was also to visit Greece in H.M.S. "Gravelines," and afterwards to inspect naval establishments at Malta.

Honours and Awards New Year Honours

The following were among the New Year Honours conferred by the King:-

G.C.B.—Admiral Sir Rhoderick R. McGrigor, K.C.B., D.S.O.

K.C.B.—Vice-Admiral the Hon. Guy H. E. Russell, C.B., C.B.E., D.S.O.; Vice-Admiral Geoffrey N. Oliver, C.B., D.S.O.

C.B.—Rear-Admiral D. M. Lees, D.S.O.; Rear-Admiral J. A. S. Eccles, C.B.E.; Rear-Admiral F. R. Parham, C.B.E., D.S.O.; Rear-Admiral P. V. McLaughlin, D.S.O.; Rear-Admiral R. M. Dick, C.B.E., D.S.C.; Rear-Admiral (E) W. S. Jameson, C.B.E.; Acting Rear-Admiral (S) W. McBride, C.B.E.; Surgeon Rear-Admiral K. A. I. Mackenzie, K.H.P.; Captain R. Oliver-Bellasis, C.V.O., R.N. (Retired).

G.B.E.—Admiral Sir E. J. Patrick Brind, K.C.B., C.B.E.

K.B.E.—Vice-Admiral Angus E. M. B. Cunninghame-Graham, C.B., C.B.E.; Vice-Admiral Richard V. Symonds-Tayler, C.B., D.S.C.

C.B.E.—Captain (Commodore, Second Class) L. N. Brownfield, R.N.; Captain C. W. Byas, R.N. (Retired); Captain (S) E. D. T. Churcher, R.N.; Rear-Admiral (E) H. S. Harrison, D.S.C.; Colonel J. C. Westall, R.M.; Surgeon Captain (D) F. R. P. Williams, O.B.E., K.H.D.S., R.N.

The award of the M.B.E. (Military Division) was announced in the London Gazette on 3rd December to Temporary Surgeon Lieutenant-Commander D. S. Macphail, R.N.V.R., "for courage, skill and determination when he was dropped by parachute into Yugoslavia in May, 1944, and, in spite of the very primitive conditions and the scarcity of medical supplies, established a hospital for the partisans."

FLAG APPOINTMENTS

FAR EAST.—Rear-Admiral A. K. Scott-Moncrieff, D.S.O., has been appointed to be Flag Officer Commanding Fifth Cruiser Squadron and Flag Officer Second-in-Command, Far East Station, in succession to Vice-Admiral W. G. Andrewes, C.B., C.B.E., D.S.O., the appointment to take effect in April, 1951.

THIRD AIRCRAFT CARRIER SQUADRON.—Rear-Admiral Caspar John has been appointed to be Flag Officer Commanding Third Aircraft Carrier Squadron, in succession to Vice-Admiral Charles E. Lambe, C.B., C.V.O., the appointment to take effect in January, 1951.

D. N. I.—Rear-Admiral Sir Anthony W. Buzzard, Bt., D.S.O., O.B.E., has been appointed to be Director of Naval Intelligence, in succession to Rear-Admiral E. W. L. Longley-Cook, C.B., C.B.E., D.S.O., the appointment to take effect in January, 1951.

PROMOTION AND RETIREMENT

The following promotions on the Flag List were announced with effect from 1st December, 1950:—

Vice-Admiral Sir Harold R. G. Kinahan, K.B.E., C.B., to be promoted Admiral in H.M. Fleet and reappointed.

Rear-Admiral Charles E. Lambe, C.B., C.V.O., to be promoted Vice-Admiral in H.M. Fleet and reappointed.

Rear-Admiral W. G. Andrewes, C.B., C.B.E., D.S.O., to be promoted Vice-Admiral in H.M. Fleet and reappointed.

Rear-Admiral W. Y. La R. Beverley, C.B., C.B.E., to be promoted Vice-Admiral in H.M. Fleet and reappointed.

The following retirements, and promotions on the Retired List, were also announced with effect from 1st December, 1950:—

Admiral Sir Wilfrid R. Patterson, K.C.B., C.V.O., C.B.E.

Vice-Admiral Sir Ernest R. Archer, K.C.B., C.B.E., and to be promoted Admiral on the Retired List the same day.

Vice-Admiral G. B. Middleton, C.B., C.B.E.

Rear-Admiral the Mackintosh of Mackintosh, C.B., D.S.O., D.S.C., and to be promoted Vice-Admiral on the Retired List the same day.

Rear-Admiral B. B. Schofield, C.B., C.B.E., and to be promoted Vice-Admiral on the Retired List the same day.

Rear-Admiral B. C. B. Brooke (Retired) to be promoted Vice-Admiral (Retired).

Rear-Admiral H. G. Norman, C.B., C.B.E., and to be promoted Vice-Admiral on the Retired List the same day.

The following retirement was announced to date 15th December, 1950:-

Vice-Admiral Sir E. Desmond B. McCarthy, K.C.B., D.S.O.

The following promotion was also announced to date 15th December, 1950:-

Rear-Admiral P. B. R. W. William-Powlett, C.B., C.B.E., D.S.O., to be promoted Vice-Admiral in H.M. Fleet and reappointed.

The following retirement and promotions were announced to date 15th January, 1951:—

Admiral Sir Henry R. Moore, G.C.B., C.V.O., D.S.O., to be placed on the Retired List.

Vice-Admiral Sir George E. Creasy, K.C.B., C.B.E., D.S.O., M.V.O., to be promoted Admiral in H.M. Fleet and reappointed.

Rear-Admiral C. A. L. Mansergh, C.B., D.S.O., to be promoted Vice-Admiral in H.M. Fleet and reappointed.

The following promotions were announced to date 8th November, 1950:-

Engineer Captain C. R. P. Bennett, O.B.E., R.N., to be Engineer Rear-Admiral. Captain (E) F. S. Billings, R.N., to be Rear-Admiral (E).

HALF-YEARLY LISTS

The Admiralty announced the following promotions and retirements to date 8th January, 1951.

To be promoted to Rear-Admiral in H.M. Fleet :-

Captain Caspar John, A.D.C.

Captain Eric G. A. Clifford.

Captain Cecil R. L. Parry, D.S.O.

Captain Sir Anthony W. Buzzard, Bt., D.S.O., O.B.E.

Captain William G. A. Robson, D.S.O., D.S.C.

Captain John P. L. Reid, C.B.

Captain John W. Cuthbert, C.B.E.

On promotion, Rear-Admirals Parry, Robson and Reid remain in their present appointments until relieved.

To be placed on the Retired List in the rank of Captain:—
Captain Francis J. Butler, M.B.E., A.D.C.
Captain Waldemar W. P. Shirley-Rollison, A.D.C.
Captain John W. Boutwood, D.S.O., A.D.C.
Captain Charles A. G. Nichols, D.S.O., M.V.O., A.D.C.
Captain James P. Gornall, D.S.O., A.D.C.
Captain Ronald J. R. Dendy, A.D.C.
Captain Frank M. Walton.
Captain Hugh Dalrymple-Smith.
Captain Charles H. Duffett, C.B.E., D.S.O.

To be placed on the Retired List in the rank of Captain on his return to the United Kingdom in March, 1951:—

Captain Richard W. Ravenhill, C.B.E., D.S.C., A.D.C.

To be placed on the Retired List in the rank of Captain on completion of his present appointment in March, 1951:—

Captain (Commodore Second Class) Gerald S. Tuck, D.S.O.

The following promotions were announced to date from 31st December, 1950:-

Commander to Captain.—T. N. Masterman, O.B.E.; T. L. Eddison, D.S.C.; A. H. F. Hunt,; W. O. Shelford; I. G. Robertson, D.S.O., D.S.C.; D. Sanderson, D.S.O.; N. H. G. Austen, D.S.O.; C. R. L. Argles; A. A. F. Talbot, D.S.O.; F. W. R. Larken; Viscount Jocelyn; F. H. E. Hopkins, D.S.O., D.S.C.; G. I. M. Balfour, D.S.C.; A. H. C. Gordon-Lennox, D.S.O.; F. R. Twiss, D.S.C.; J. C. Cockburn, D.S.C.

Commander (E) to Captain (E).—J. Burtenshaw, R. F. Storrs, R. L. Jordan, O.B.E., A. B. Vickery, W. F. B. Lane, D.S.C.

Commander (L) to Captain (L).—E. H. Johnson.

Instructor Commander to Instructor Captain.—J. Fleming., D.S.C.

Surgeon Commander to Surgeon Captain.—R. A. Graff.

Commander (S) to Captain (S).- J. Parrott, O.B.E., J. R. Allfrey, C.B.E.

EXERCISES AND CRUISES

Home Fleet.—The battleship "Vanguard," wearing the flag of the Commander-in-Chief, Admiral Sir Philip Vian, K.C.B., K.B.E., D.S.O., the cruiser "Swiftsure," wearing the flag of the Rear-Admiral, Second Cruiser Squadron, Rear-Admiral C. A. L. Mansergh, C.B., D.S.O., and other ships of the Home Fleet returned to their bases in the United Kingdom on 7th December, on the conclusion of the Autumn cruise. The ships returned direct from Portuguese and French ports, where they had been paying courtesy visits since leaving Gibraltar at the end of November.

The Navies of four other North Atlantic Treaty Powers besides Great Britain took advantage of the presence of the Home Fleet at Gibraltar to send ships to that base to carry out exercises. The Canadian aircraft carrier "Magnificent" and destroyers "Micmac" and "Huron" concluded exercises on 9th November, when they left for Bermuda. Later in the month the French submarine depot-ship "Gustave Zede" and the frigates "Tonkinois" and "La Surprise" were at Gibraltar for a week. The Portuguese frigate "Diego Gomez" and destroyers "Vouga" and "Dao" operated with the Fleet for about ten days and accompanied the "Vanguard" and destroyer "St. James" to Lisbon on 29th November, exercising on passage. The Netherlands submarines "Zwaardvisch" and "Tijgerhaai" also visited Gibraltar and later joined up with the aircraft carrier "Karel Doorman" and destroyer "De Bitter" when they returned from exercises in the Mediterranean.

The Home Fleet is again based on Gibraltar for the Spring cruise, which began on 15th January. The Fleet was due to leave Gibraltar on 8th February, to exercise with ships of the Mediterranean Fleet and the United States Sixth Fleet, and afterwards to

visit Mediterranean ports. It was to reassemble at Gibraltar about 5th March and return to the United Kingdom about 14th March.

MEDITERRANEAN.—Five senior officers of the Atlantic Pact Powers arrived in Malta on 7th November from Paris on an official visit. They were Vice-Admiral Mistoffe, France; Rear-Admiral A. D. Nichol, Great Britain; Rear-Admiral G. E. Cooper, United States; Generale di Brigata F. Moech, Italy; and Colonel de Watre, France.

The light fleet carrier "Glory" (Captain E. H. Shattock, O.B.E., R.N.), arrived at Plymouth on 15th December, after 13 months' service in the Mediterranean. She was to

recommission with a Chatham crew in January for further foreign service.

FAR EAST.—The light fleet carrier "Triumph" (Captain A. D. Torlesse, D.S.O., R.N.), returned to Portsmouth on 9th November, from the Far East. The "Triumph" left Malta in August, 1949, to augment the air defences of Hong Kong. In June, 1950, while returning to Hong Kong from a cruise in Japanese waters, she was diverted to Korea and served there with the United Nations Forces until replaced by the "Theseus." During her commission she steamed 66,597 miles, of which 18,578 miles were in Korean waters.

The light fleet carrier "Warrior" (Captain St. J. Cronyn, D.S.O., R.N.), returned to Portsmouth on 21st November, from a trooping trip to the Far East, for which she was brought forward from reserve. She left Portsmouth again for the Far East on 12th January.

The light fleet carrier "Ocean" (Captain R. C. V. Ross, D.S.O., R.N.), arrived at Plymouth on 11th December, from her fourth trooping trip with personnel and stores to the Far East, which began from Plymouth on 6th September.

AMERICA AND WEST INDIES.—The cruiser "Glasgow" (Captain W. J. Yendell, R.N.), and frigate "Snipe" (Commander D. S. Tibbits, D.S.O., R.N.), left Bermuda on 16th October, and arrived in England in the last week of the month. The "Glasgow" had steamed 50,770 miles and called at 31 different ports. About 10,000 guests were entertained on board at 33 receptions, and 60,000 people were shown round the ship, the record being 8,000 on one Sunday afternoon at Portsmouth, New Hampshire. The "Snipe" had steamed nearly 90,000 miles and made 145 visits to ports in the West Indies and coasts of North and South America. She crossed the Equator six times and made transit of the Panama Canal four times. During the previous 18 months over 65,000 people visited her, the record being at Albany, New York, when 9,000 people managed to obtain a footbold.

The America and West Indies Squadron left Bermuda on 5th January for its Spring cruise, under the command of Vice-Admiral R. V. Symonds-Tayler, Commander-in-Chief, with his flag in the cruiser "Superb." With the frigates "Sparrow" (Captain S. J. S. Boord, R.N.), and "Bigbury Bay" (Captain W. W. R. Bentinck, O.B.E., R.N.), the "Superb" proceeded to Guantanamo, Cuba. Here the "Sparrow" was to part company to pass through the Panama Canal and show the Flag on the West Coast of South America. At Rio de Janeiro the "Bigbury Bay" was to part company from the flagship and visit ports on the East Coast of South America. The "Superb" herself was to circumnavigate the South American Continent, sailing through the Magellan Straits and calling as far South as Port Stanley in the Falkland Islands. She will feturn up the West Coast and is due back at Bermuda on 19th April.

SOUTH ATLANTIC.—H.M. ships of the South Atlantic Station and the French cruiser "Jeanne d'Arc," with aircraft of the South African Air Force, carried out a joint exercise early in January in which the "Jeanne d'Arc" simulated an enemy raider and the Navy and Air Force sought to intercept her.

PERSONNEL

RATES OF PAY.—At a meeting of the Privy Council held on 8th December, a Memorial from the Lords Commissioners of the Admiralty was approved authorizing new rates of

pay for officers of the Royal Navy and Royal Marines, except medical and dental officers, and also new rates of flying pay. The new rates, which operate from 1st September, 1950, had already been announced to the Fleet (see the November Journal, page 628) and in the White Papers Cmd. 8027 and 8047. The Order in Council was published in the London Gazette on 12th December.

Entry to Dartmouth.—The Admiralty announced on 9th December, that the age limits for Dartmouth cadetships had been changed from 16 years—16 years 4 months to 16 years—16 years 8 months. Cadets will thereby be able to sit for the examination twice if they desire. Under the regulations laid down in 1948 they were allowed only one opportunity. Dartmouth cadetships apply to the Executive, Engineering, and Supply and Secretariat Branches of the Royal Navy. The age regulations for Special Entry Cadetships remain unchanged.

TRAINING CRUISE.—The training cruiser "Devonshire" (Captain G. H. Stokes, C.B., D.S.C., R.N.), which left Plymouth on 12th January on her Spring cruise to Trinidad, Barbados, St. Kitts, St. Vincent, Grenada and Gibraltar until April, had on board 245 cadets, including two from the Royal Australian Navy, seven from the Royal New Zealand Navy, six from the Royal Pakistan Navy, three from the Indian Navy, six from the Ceylon Navy and eight from the Burmese Navy.

ATOMIC WARFARE COURSES.—Courses of instruction on the medical aspects of atomic warfare at the Royal Naval Medical School, Alverstoke, Hants, originally started for medical officers of the Royal Navy, have been made available to wardmaster officers in the Royal Navy, to medical officers of the R.N.V.R., and to certain civilian members of the nursing profession. These courses were started in October, 1948.

MERCHANT NAVY DEFENCE COURSES.—The Ministry of Transport announced on 20th December, that arrangements were being made to re-start, towards the end of January, defence courses for Merchant Navy masters, officers and men. The scheme for the courses had been prepared by the Admiralty with the concurrence of and in collaboration with the Ministry of Transport and the representative bodies of shipowners, officers and men. Courses will be held in the first instance at London, Liverpool, Glasgow and Newcastle-upon-Tyne, with the possibility of extension to other ports. Complete defence courses both for officers and men will occupy ten working days.

NAVAL AIR COMMISSIONS.—The Admiralty is inviting former naval pilots and any now serving in the R.N.V.R. who have completed 300 hours' flying in service aircraft to re-enter on a short-service Commission. These Commissions will normally be for four years, but some may extend to six years. They carry the new improved rates of pay and flying pay and a gratuity will be paid at the end of the Commission, for example, £700 after four years. The maximum age on entry is 33 years. Applications, preferably accompanied by flying log books, should be addressed to the Secretary of the Admiralty (C.W.522), London, S.W.I.

MATERIAL

Construction and Conversion.—The progress of naval construction, conversions and other work at present in hand was reviewed by the Parliamentary Secretary to the Admiralty, Mr. L. J. Callaghan, in reply to a question in the House of Commons on 25th October by Commander Noble, R.N., M.P. Mr. Callaghan said that of the new vessels to be built shown in the Navy Estimates of 1950–51, H.M.S. "Ark Royal" and three destroyers of the "Daring" class had been launched. Six new aircraft carriers will join the Fleet between now and 1954. The number of warships under construction has been increased by two anti-submarine frigates of new design; and 41 new design mine-sweepers, including those approved under the recent additional defence measures, have been or shortly will be ordered, in addition to some small craft. The conversion of fleet destroyers into A/S frigates was already under way, and six of these vessels would be in dockyard hands by the end of 1950. More are planned to follow during 1951. A programme of converting wartime submarines to higher speeds has also begun. The aircraft carrier

"Victorious" is in hand for modernization to enable her to operate future types of aircraft. The number of refits for ships in the Reserve Fleet that will have been undertaken during the three years ending in March, 1951, is 450, including 88 which were part of the recent additional defence programme. Virtually all the ships of the operational reserve have now been refitted at least once since the end of the War. A start is being made on the building of stocks of degaussing and other equipment for the protection of the Merchant Fleet in war.

H.M.S. "Delight."—The sixth of the "Daring" class destroyers, H.M.S." Delight," was launched on 21st December, from the Govan shipyard of the Fairfield Shipbuilding and Engineering Company. The naming ceremony was performed by Lady Jowitt, wife of the Lord Chancellor, and the First Lord of the Admiralty, Viscount Hall, was among those present. The "Delight" has an extreme length of 390 ft., a beam of 43 ft., and will be powered by geared steam turbines of an advanced design. She will mount six 4.5 in. guns and six other guns, and there will be two Pentad torpedo tube mountings above the water line.

STRUCTURAL TRIALS.—Structural tests have been completed at the Naval Construction Research Establishment, Rosyth, on the hull of H.M.S. "Albuera," an incomplete "Battle" class destroyer which was declared surplus after the War. The vessel was supported amidships in dry dock and loaded at the ends by water ballast until complete structural failure occurred. During the test, over 700 gauges gave a continuous record of the stresses in various critical parts of the structure. Considerable data was collected and comparisons are to be made between experimental results and values calculated by various theories. In this manner, design methods may be improved so that vessels may be built of lighter construction yet of superior strength.

Tyne Clearance.—The Admiralty Salvage Organization completed in November the difficult task of removing the Belgian steamer "Brabo," of 3,707 tons gross, from the dredged channel of the River Tyne. Following a collision during the War, she foundered when making for a suitable beaching ground inside the Tyne piers. Cofferdams of steel and wood which had been constructed to refloat her were completely washed away by a gale just 24 hours before the final preparations were made. As the position was much exposed to gales from the North and East it was decided to resort to piecemeal removal. The operation was rendered more difficult by the presence of the mixed cargo. Some 2,250 tons of wood pulp, 1,100 tons of scrap steel, and 900 tons of steel billets and slabs were recovered.

"Samsylarna" Salvage Award.—Silver bullion worth £1,000,000, part of the general cargo of the s.s. "Samsylarna," was salved from the ship between 7th August and 24th September, 1944, after she had been damaged by an aerial torpedo in the Mediterranean. Distribution of awards for the salvage began on 16th December, 1950. The awards announced in the London Gazette range from a first class share of £293 15s. 3d. for a Commander to an eleventh class share of 19s. for ordinary seamen.

DAMAGE TO PROPERTY.—In the House of Commons on 8th November, in reply to a question the Parliamentary Secretary to the Admiralty, Mr. Callaghan, said there had been eleven acts of malicious damage in H.M. ships and establishments during the previous six months, but the circumstances did not point to a planned campaign of sabotage.

NAVAL AVIATION

Non-Stop from Gibraltar.—Four Sea Hornet aircraft of No. 809 Squadron, Royal Navy, commanded by Lieutenant-Commander D. H. Richards, R.N., flew non-stop from Gibraltar to Lee-on-Solent on 16th October. The flight, which was accomplished in three hours, ten minutes, was the first of a formation of this type of twin-engined two-seater naval fighter aircraft direct from Gibraltar to the United Kingdom. The Squadron had been exercising with the Home Fleet during its Autumn cruise and had been embarked in H.M.S. "Vengeance" during the outward passage of the Fleet.

SWEPT-WING AIRCRAFT LANDINGS.—The Vickers-Armstrongs Supermarine 510 jet fighter, built for the Ministry of Supply for research purposes, made its first deck landings on H.M.S. "Illustrious" during trials in the English Channel on 8th November. It is developed from the Attacker, now in service in the Royal Navy, and is the first British aircraft to have both wings and tailplane swept back. The significance of the first landing of such an aircraft on a carrier is that it shows that aircraft with an accentuated sweep-back of as much as 40° can maintain good handling qualities at low speed.

Exercise with T.A. Units.—On 10th December, three R.N.V.R. Air Squadrons opposed local units of the Territorial Army in a four-hour training exercise, Volunteer 1, in an area North of Chichester. The aircraft were Seafires of No. 1831 Squadron from Stretton, No. 1832 Squadron from Culham, and No. 1833 Squadron from Bramcote. They were based at the Naval Air Station, Lee-on-Solent for the exercise, in which their task was to locate ground forces defended by Seafires of No. 802 Squadron operating from the R.N. Air Station, Ford. In addition to the T.A. units, signals and transport personnel from the Portsmouth Group, Royal Marines, took part. It was the first occasion in which R.N.V.R. Squadrons had co-operated on such a scale with Territorial units.

New Married Quarters.—First married quarters at the R.N. Air Station at Stretton, Warrington, Lancashire, commanded by Captain St. J. R. J. Tyrwhitt, D.S.O., D.S.C., R.N., were officially opened on 2nd December by Rear-Admiral (E) W. S. Jameson, C.B.E., Rear-Admiral Reserve Aircraft, who handed the keys of their homes to two petty officers, the first tenants. By next Summer it is expected that about 80 semi-detached houses of the three bedroom type will have been completed on what is known as the Lumbrook Estate for personnel at Stretton.

ROYAL NAVAL VOLUNTEER RESERVE

The New Year Naval Promotion lists included the name of Honorary Commander Sir Arthur W. Jarratt, who was promoted to Honorary Captain, R.N.V.R. Sir Arthur served in the Royal Navy in the First World War. Later he served as the Admiralty Film Industry Liaison Officer and as Deputy Chairman of the Royal Naval Film Corporation from its inception in 1937, when he was given the honorary rank of Lieutenant-Commander, R.N.V.R. He was promoted to Honorary Commander, R.N.V.R. in 1940. The Honorary rank of Captain, R.N.V.R. is very rarely given and is one of the most prized recognitions in the hands of the Board of Admiralty. There are only two other holders of it, His Royal Highness the Duke of Gloucester and Sir Basil Brooke, Prime Minister of Northern Ireland. This promotion has been made in the case of Sir Arthur Jarratt not only as a personal recognition of his great service to the Royal Navy as a whole, but also as a tribute to the great industry which he represents within the Navy.

ROYAL MARINES

GOVERNOR BAHAMA ISLANDS.—It was announced in the London Gazette on 21st November, that the King has been pleased to appoint Major-General Robert A. R. Neville, C.B.E., to be Governor and Commander-in-Chief of the Bahama Islands.

Honorary Colonels-Commandant.—The following were announced in the London Gazette on 5th December:—

Major-General G. E. Wildman-Lushington, C.B., C.B.E., is appointed Honorary Colonel-Commandant, Portsmouth Group, 30th October, 1950, vice General Sir Thomas L. Hunton, K.C.B., M.V.O., O.B.E., who has reached the age limit for the appointment.

Lieut.-General A. L. Forster, C.B., D.S.O. (Retired) relinquished the appointment of Honorary Colonel-Commandant, Chatham Group, 1st November, 1950.

HALF YEARLY PROMOTIONS :-

Lieut.-Colonel to Colonel.-C. R. Hardy, R.M.

VISIT TO MALAYA.—The Commandant General, Royal Marines, Lieut.-General Sir Leslie Hollis, K.B.E., C.B., accompanied by a staff officer, Captain J. D. H. Salter, R.M., flew to Malaya on 29th October, to visit the Commando Brigade carrying out duties in the interior. Owing to the fact that the Commandos in Malaya are responsible for very considerable areas, General Hollis flew to the various points he desired to visit. At Singapore he visited the Commander-in-Chief, Far East Land Forces, General Sir John Harding, K.C.B., C.B.E., D.S.O., M.C., and the Commander-in-Chief, Far East Station, Admiral Sir Patrick Brind, K.C.B., C.B.E.

3RD COMMANDO BRIGADE.-The Admiralty announced on 28th December, that Brigadier C. F. Phillips, D.S.O., O.B.E., had been appointed to relieve Brigadier C. R. Hardy, D.S.O., O.B.E., as Commander, 3 Commando Brigade, Royal Marines. This Brigade has been serving in Malaya since June, 1950.

STAFF BANDMASTER.—An Order in Council of 9th October, provides that the band rank formerly known as Staff Sergeant is in future to be known as Staff Bandmaster to avoid misunderstanding of its status in relation to Bandmaster and Band Sergeant.

DOMINION AND COMMONWEALTH NAVIES CANADA

HALF-YEARLY PROMOTIONS .- The following were announced by the Department of National Defence, Ottawa, on 1st January :-

Captain to Commodore.—H. F. Pullen, J. C. Hibbard. Commander to Captain.—D. W. Piers.

Instructor Commander to Instructor Captain .- M. H. Ellis.

Commander (S) to Captain (S).—C. J. Dillin, M. A. Davidson.

Commander (Special Branch) to Captain (Special Branch) .- J. B. Roper.

A.C.N.S. (AIR).—The Admiralty announced in November that Captain C. L. Keighly-Peach, D.S.O., O.B.E., R.N., has been lent to the Royal Canadian Navy as Assistant Chief of Naval Staff (Air) in the rank of Commodore, Second Class.

PROGRESS REPORT.-Mr. Claxton, Minister of National Defence, in a report on the work in 1950 of the Royal Canadian Navy, said on 22nd December, that the active fleet was now larger than it was a year ago by five ships, including three destroyers. Canadian shipyards were building more anti-submarine escort vessels, mine-sweepers and other vessels. All destroyers, including those in reserve, were being modernized, and recruitment was going forward to raise the Navy's strength from 9,000 to 14,000 men.

WEST COAST DEFENCES.-Mr. Claxton announced in Vancouver on 19th November, that defence measures on the coast of British Columbia would be increased by the addition of seven new naval vessels.

FUELLING RECORD.—During operations off Korea covering the Inchon landings in September, the Canadian "Tribal" class destroyer "Sioux" set up a record for connecting up when refuelling at sea of four minutes, 46 seconds.

AUSTRALIA

NEW YEAR HONOUR.—The following award was included in the New Year Honours

K.B.E.-Vice-Admiral John A. Collins, C.B., R.A.N.

HALF YEARLY PROMOTIONS.—The following was announced by the Commonwealth Naval Board to date 31st December, 1950:-

Commander to Captain,-O. H. Becher.

JUBILEE EXERCISES.—Fourteen warships of British Commonwealth Countries are taking part in exercises in Australian waters from January to April, as part of the Jubilee Celebrations, under Rear-Admiral J. A. S. Eccles, Flag Officer Commanding the Royal Australian Navy, with his flag in the aircraft carrier "Sydney." The other ships are the cruiser "Australia," destroyer "Tobruk," submarine "Tactician" and frigates "Shoalhaven," "Condamine," "Murchison" and "Culgoa" from the Australian Fleet; the cruiser "Ontario" from Canada; the light cruiser "Bellona" and frigates "Taupo" and "Hawea" from New Zealand; and the frigates "Shamsher" and "Sind" from Pakistan.

NEW ZEALAND

NEW YEAR HONOUR.—The following was included in the New Zealand List:— C.B.E.—Commander (S) (Acting Captain (S)) Guy T. Millett, R.N.

Senior Officer.—The appointment was announced from 30th November of Captain G. V. M. Dolphin, D.S.O., R.N., to the "Bellona," in command, and as Senior Officer, New Zealand Squadron.

PAKISTAN

New Year Honours.—The following award was included in the New Year Honours List:—

C.B.E.—Acting Rear-Admiral James W. Jefford, O.B.E., R.N. (Special List, ex-R.I.N.).

ARABIAN SEA EXERCISE.—A three-day exercise in the Arabian Sea by the Royal Pakistan Navy and Air Force and units of the Royal Navy and R.A.F. took place in mid-November. The British units taking part were the cruiser "Mauritius" (Captain E. O. F. Price, R.N.), and the frigate "Loch Glendhu" (Commander H. B. Acworth, R.N.), of the East Indies Fleet; and No. 4 Squadron, Coastal Command, R.A.F., which had flown from Britain. On completion of the exercise H.M.S. "Mauritius" and H.M.P.S. "Sind" bombarded the uninhabited island of Churna, 30 miles North-West of Karachi. The island was later attacked with bombs and rockets by Tempest aircraft of the R.P.A.F.

INDIA

APPOINTMENT.—Captain R. M. T. Taylor, R.N. (Retired) has been lent to the Indian Navy as Commodore in Charge, Bombay, in the rank of Commodore, Second Class.

FOREIGN NAVIES

CHILE

ANTARCTIC BASE.—A Chilean naval expedition composed of the patrol ships "Lientur" and "Lautaro" and the transport "Angamos" left Valparaiso on 20th December, for British Antarctic territory forming part of the Falkland Islands Dependencies to establish a third military base. The two existing Chilean Antarctic bases are garrisoned by the Army and the Navy respectively and it is proposed that the third shall be manned by airmen. In a letter to The Times published on 28th December, the Chilean Ambassador in London pointed out "that in the agreement signed last November—the same as the agreement signed for the first time in January, 1949—it is established that the three Countries concerned (Argentina, Britain and Chile) are authorized to send to the Antarctic service ships for routine purposes. Chile, therefore, is not breaking any part of this agreement by sending to the Antarctic the vessels mentioned, which are the same as those sent last Summer."

DENMARK

DEEP-SEA EXPLORATION.—The Danish frigate "Galathea" called at Plymouth in October at the outset of her voyage of deep-sea exploration round the World which will continue into 1952. The object of the expedition is to investigate the fauna at the greatest ocean depths. Nothing is known of the fauna from 7,000 metres down to the greatest known depths, some 10,800 metres. Special implements have been constructed and methods devised by Danish scientists for these investigations.

EGYPT

EXERCISES WITH R.N.—A Cairo telegram on 6th January, "from usually reliable sources" said that ships of the Egyptian Navy were to exercise with the British Mediterranean Fleet. These would be the first joint Anglo-Egyptian naval exercises since the end of the Second World War.

Ship Repair Facilities.—The Egyptian Customs Administration informed shipping agents on 20th December, of a decision to remove restrictions which denied repair facilities at Egyptian ports to blacklisted ships. About 50 ships of various nationalities had been blacklisted since May, 1948, when Egypt went to war against Israel, for transporting goods to Israel or calling at Israeli ports. Removal of the restrictions followed protests to Egypt by six maritime Powers, including Britain, the United States and France, against difficulties placed in the way of oil tankers passing through the Suez Canal and other merchant shipping.

FRANCE

U.S. Destroyer Escorts.—Two United States destroyer escorts, the "Samuel S. Miles" and "Riddle," built in 1943, have been turned over to France at a ceremony at Philadelphia Navy Yard. The ships were renamed the "Arabe" and "Kabyle" respectively. The ceremony was the second of its kind under the Mutual Defence Assistance Programme of the Atlantic Pact Countries, the first being when two destroyer escorts were turned over to the Netherlands.

HOLLAND

Naval Aircraft in Britain.—The Admiralty announced on 28th December, that Netherlands naval aircraft and pilots would be based in the United Kingdom early in 1951. Two squadrons from the Dutch aircraft carrier "Karel Doorman," formerly H.M.S. "Venerable," were to fly in to R.N. Air Stations and to remain in this Country at least until the Autumn. After a period of disembarked training it is intended that the Squadrons shall go afloat during the Summer cruise of the Home Fleet, operating from a British carrier. The two Squadrons consist of British aircraft, No. 860 Squadron having Sea Fury fighters and No. 4 Squadron Fireflies. No. 860 is an R.N. squadron number which has been retained by the Dutch since they operated with British naval air squadrons in the Second World War. This squadron goes to St. Merryn, Cornwall, and No. 4 Squadron to Eglinton, Northern Ireland.

ITALY

EXERCISES WITH ROYAL 'NAVY.—The Admiralty announced on 1st November, that a satisfactory report had been received on the second series of exercises in which escort vessels of the Italian Navy joined units of the Commonwealth Navies in waters off Taranto. The ships taking part were H.M. Ships "Forth" and "Pelican," H.M. N.Z. ships "Taupo" and "Hawea," H.M. submarines "Talent," "Token" and "Sturdy," and the Italian corvettes "Alabarda," "Sibilla," "Minerva," "Danaide," "Gabbiano," "Gru," "Driade," "Urania" and "Pomona." The exercises consisted of communications and anti-submarine practices. They culminated in Commonwealth and Italian ships working together in the successful defence of a small convoy against submarine attack.

DESTROYER ESCORTS FROM U.S.A.—It was reported from New York on 15th November, that a second group of officers and men of the Italian Navy had arrived there to take over three destroyer escorts which were to be ceded by the United States to Italy under the North Atlantic Treaty military aid plans!

TRIESTE FACILITIES.—It was reported from Trieste on 10th December, that a naval commission of British, American, French, Dutch and Italian officers had visited the port to establish whether the shipyards at Trieste and Monfalcone could build destroyers and minesweepers for early delivery to the Atlantic Treaty nations.

PORTUGAL

EXERCISES WITH ROYAL NAVY.—While on passage from Gibraltar to Lisbon (see "Exercises and Cruises") the British Home Fleet completed a series of exercises with units of the Portuguese Navy, including the frigate "Diego Gomez" and the destroyers

"Dao" and "Vouga." The results of these exercises were reported by the Commander-in-Chief, Admiral Sir Philip Vian, to have been most encouraging, due to the keenness and hard work of all those participating.

TURKEY

SUBMARINES FROM U.S.A.—The Correspondent of *The Times* at Istanbul reported on 20th December, that two submarines given by the United States to Turkey under American military aid had arrived there and been transferred to the Turkish Navy. With these two ships the total number of vessels given since 1947 by America to Turkey amounts to six submarines, four destroyers, eight minesweepers, eight smaller minesweepers, and four auxiliary ships.

VISIT OF U.S. ADMIRAL.—Admiral Robert Carney, Commander-in-Chief of the United States Naval Forces in the Eastern Atlantic and Mediterranean, arrived in Istanbul on 10th January, from Athens on a short courtesy visit, during which he took the opportunity of establishing personal contact with Turkish leaders.

UNITED STATES

Construction Programme.—On 8th January, the Chairman of the House of Representatives Armed Services Committee, Mr. Vinson, introduced legislation to authorize a new programme to cost 2,000 million dollars for the building of over 80 new vessels for the Navy, and the modernization of another 250 ships. The new vessels will include a 60,000 ton aircraft carrier of modified flush deck construction and two rocket-launching craft. The aircraft carrier would take three and a half years to build, but the rest of the programme would be completed in two years. Earlier plans to build a carrier of this size were halted early in 1949, by the former Secretary of Defence, Mr. Louis Johnson, but Mr. Vinson made it clear that the new legislation had been approved by the present Secretary of Defence, General Marshall, by the Joint Chiefs of Staff, and by the Bureau of the Budget. Plans also include the construction of 52 minesweepers, seven Schnorkel submarines, and six landing ships. In the modernization programme six "Essex" class aircraft carriers are to be converted to handle modern jet fighters, 194 destroyers adapted for modern anti-submarine warfare, 12 cruisers for anti-aircraft protection, and two cruisers for the launching of guided missiles.

CRUISERS FOR SOUTH AMERICA.—The State Department at Washington announced on 4th January, the offer to sell two light cruisers each to Argentina, Brazil and Chile for western hemisphere defence. The proposed sales would be made under the Mutual Defence Agreement of 1949. Representatives of the three South American countries later announced that their Governments had agreed to buy the ships.

BIG BOMBER LANDINGS.—On 26th October, the United States Navy announced that big aircraft capable of carrying atomic bombs had landed on an aircraft carrier at sea for the first time. They were AJ-1 attack bombers. This type weighs over 17 tons and has a speed of 350 m.p.h. A squadron of unloaded AJ-1's made separate landings on the carrier "Coral Sea" off Virginia Capes during exercises.

R.M. Trophy for U.S.—The "Canton Bell," which was taken by the 1st Battalion, Royal Marines, after the capture of Canton in 1857, was presented to the United States Marine Corps at a ceremony at Eastney Barracks, Southsea, Portsmouth, on 28th November, The bell was sent to England and became one of the historical trophies kept at the Royal Marine Barracks, Chatham. Before these Barracks closed recently officers of the Division expressed the wish that it should be handed to the U.S.M.C. The bell was presented by the Commandant General, R.M., Lieutenant-General Sir Leslie Hollis, and accepted on behalf of General C. B. Cates, Commandant of the U.S. Marine Corps, by Colonel E. S. Piper, the senior U.S.M.C. officer in England.

ARMY NOTES

H.M. THE KING

The King, as Colonel-in-Chief, inspected the 1st Battalion, The King's Royal Rifle Corps on 3rd November, 1950, at Busfield Barracks, Winchester, and afterwards took the Salute at a march past.

The King, as Colonel-in-Chief, inspected the 1st The Royal Dragoons at Chester on 5th December.

The Queen, as Colonel-in-Chief, unveiled the War Memorial of The Bedfordshire and Hertfordshire Regiment at Kempston Barracks, Bedford, on 11th November, 1950.

The Duchess of Kent, as Colonel-in-Chief, The Queen's Own Royal West Kent Regiment, inspected the 1st Battalion at Shorncliffe on 1oth January.

TO BE AIDE-DE-CAMP GENERAL TO THE KING.—General Sir John Harding, K.C.B., C.B.E., D.S.O., M.C., late Infantry (21st October, 1950), vice General Sir James S. Steele, G.C.B., K.B.E., D.S.O., M.C., Ll.D., retired.

TO BE AIDES-DE-CAMP TO THE KING.—Brigadier K. G. Exham, D.S.O., late Infantry (30th October, 1950), vice Brigadier A. de L. Cazenove, C.B.E., D.S.O., M.V.O., retired; Brigadier, W.R.N. Hinde, C.B.E., D.S.O., late R.A.C. (24th November, 1950), vice Colonel J. G. Tiarks, retired.

To be Colonels Commandant.—Of the Corps of Royal Engineers, General Sir Brian H. Robertson, Bart., G.B.E., K.C.M.G., K.C.V.O., C.B., D.S.O., M.C., A.D.C., late R.E.(11th October, 1950), vice Lieut.-General Sir Lionel V. Bond, K.B.E., C.B., tenure expired, and Major-General Sir Eustace F. Tickell, K.B.E., C.B., M.C., late R.E. (24th December, 1950), vice Lieut.-General Sir Francis P. Nosworthy, K.C.B., D.S.O., M.C., tenure expired; of the Royal Corps of Signals, Major-General C. M. F. White, C.B., C.B.E., D.S.O., late Royal Signals (19th September, 1950), vice Major-General G. G. Rawson, C.B., O.B.E., M.C., resigned; of the Royal Army Service Corps, Major-General C. Miller-Smith, C.B., C.B.E., M.C., A.M.I.Mech.E., late R.A.S.C. (19th October, 1950), and Major-General F. S. Clover, C.B., C.B.E., A.M.I.Mech.E., late R.A.S.C. (retired) (5th December, 1950), vice Major-General E. H. Fitzherbert, C.B.E., D.S.O., M.C., tenure expired.

REPRESENTATIVE COLONELS COMMANDANT, 1951.—The following have been appointed Representative Colonels Commandant for their respective Corps and Regiments for the year 1951—:

Royal Armoured Corps (Cavalry Wing).—Lieut.-General Sir Charles F. Keightley, K.C.B., K.B.E., D.S.O.; (R.T.R. Wing).—Field-Marshal the Viscount Montgomery of Alamein, K.G., G.C.B., D.S.O. Royal Tank Regiment.—Major-General Sir Percy Hobart, K.B.E., C.B., D.S.O., M.C.

Royal Regiment of Artillery.-Lieut.-General Sir Otto M. Lund, K.C.B., D.S.O.

Corps of Royal Engineers.—Lieut.-General Sir Charles J. S. King, K.B.E., C.B., M.Inst.C.E.

Royal Corps of Signals .- Major-General C. H. H. Vulliamy, C.B., D.S.O.

Royal Army Service Corps.—Major-General F. S. Clover, C.B., C.B.E., A.M.I.Mech.E..

Royal Army Medical Corps.—Lieut.-General Sir Treffry O. Thompson, K.C.S.I.,
C.B., C.B.E., M.D.

Royal Army Ordnance Corps.—Major-General W. W. Richards, C.B., C.B.E., M.C. Corps of Royal Electrical and Mechanical Engineers.—Major-General W. S. Tope, C.B., C.B.E., M.I.Mech.E., M.I.E.E.

Royal Army Dental Corps.-Colonel J. P. Duguid.

Honours and Awards

VICTORIA CROSS

It was announced on 5th January in a Supplement to the London Gazette of 2nd January, that the King had been graciously pleased to approve the posthumous award of the Victoria Cross to:

Major Kenneth Muir, The Argyll and Sutherland Highlanders (Princess Louise's) in recognition of gallant service in Korea.

On 23rd September, 1950, "B" and "C" Companies of the 1st Battalion, The Argyll and Sutherland Highlanders who were taking part in a general advance across the Naktong River to Songju, attacked an enemy-held feature, Hill 282.

Major Muir, Battalion Second-in-Command, although only visiting the position, took over command of the two companies after they had become inextricably mixed following heavy casualties and, with complete disregard for his own safety while repeatedly under enemy fire, moved round the forward elements encouraging the men to greater effort. The companies subsequently suffered further casualties as a result of an attack made in error by American aircraft, which led to a withdrawal some fifty feet below the crest.

Major Muir, realizing that the enemy had not taken immediate advantage of the incident, personally led a counter-attack with a small force of some thirty all ranks and retook the crest. In the subsequent defence, having used a 2-inch mortar with great effect against the enemy, and though mortally wounded, he was still determined to fight on.

The effect of his splendid leadership on the men was amazing, and it was entirely due to his magnificent courage and example, and the spirit which he imbued in those about him, that all wounded were evacuated from the hill and, as was subsequently discovered, very heavy casualties inflicted on the enemy in the defence of the crest.

NEW YEAR HONOURS

The following awards were included in the New Year Honours List:-

G.C.B.—General Sir Sidney C. Kirkman, K.C.B., K.B.E., M.C.

K.C.B.—Lieut.-General N. C. D. Brownjohn, C.B., C.M.G., O.B.E., M.C.; General (temporary) Sir Douglas D. Cracey, K.C.I.E., C.B., C.B.E., M.C.; General Sir Frank E. W. Simpson, K.B.E., C.B., D.S.O.

C.B.—Brigadier (temporary) J. R. Cochrane, C.B.E.; Major-General N. W. Duncan, C.B.E., D.S.O.; Brigadier (temporary) A. F. Hely, C.B.E., D.S.O., T.D.; Brigadier H. M. Hinde, C.B.E.; Major-General H. A. Hounsell, C.B.E.; Major-General K. F. M. Lewis, D.S.O., M.C.; Brigadier (temporary) G. A. C. Macnab; Brigadier (temporary) H. C. Phipps, D.S.O.; Brigadier (temporary) C. R. Price, C.B.E., B.A.; Major-General A. C. Shortt, O.B.E.; Brigadier (temporary) (now Colonel) D. F. Taunton, D.S.O.; Major-General T. Young, O.B.E., M.B., K.H.P.

K.C.M.G.-Major-General T. S. Airey, C.B., C.B.E.

D.B.E.-Brigadier Anne Thomson, C.B.E., R.R.C., K.H.N.S., Q.A.R.A.N.C.

K.B.E.-Lieut.-General K. G. McLean, C.B.

Royal Red Cross First Class.—Major E. M. Neale, Q.A.R.A.N.C.; Lieut.-Colonel (acting) F. M. Smith, A.R.R.C., Q.A.R.A.N.C.

APPOINTMENTS

WAR OFFICE.—Major-General E. M. Bastyan, C.B., C.B.E., appointed Director of Staff Duties (24th November, 1950).

Major-General K. F. McK. Lewis, D.S.O., M.C., appointed Director of Artillery (20th December, 1950). (Substituted for the notification in the November, 1950, JOURNAL)

UNITED KINGDOM.—Colonel (temporary Brigadier) D. Dawnay, D.S.O., appointed Commandant, Royal Military Academy, Sandhurst, with the temporary rank of Major-General (1st January, 1951). (Substituted for the notification in the November, 1950, JOURNAL).

Colonel (temporary Brigadier) E. R. Benson, C.M.G., C.B.E., appointed Commander No. 4 A.A. Group, with the temporary rank of Major-General (10th January, 1951). (Substituted for the notification in the November, 1950, JOURNAL).

Major-General H. Murray, C.B., D.S.O., appointed Commander, Northumbrian District and 50th (Northumbrian) Infantry Division (T.A.) (March, 1951).

GERMANY.—Major-General J. M. Kirkman, C.B., C.B.E., appointed Chief of Intelligence Division, Control Commission for Germany (27th November, 1950).

West Africa.—Major-General L. G. Whistler, C.B., D.S.O., appointed G.O.C.-in-C., West Africa Command (May, 1951).

MIDDLE EAST LAND FORCES.—Brigadier (local Major-General) A. J. Beveridge, O.B.E., M.C., M.B., appointed Director of Medical Services, with the temporary rank of Major-General (1st November, 1950).

PAKISTAN.—Colonel (temporary Brigadier) W. F. H. Kempster, D.S.O., O.B.E., appointed Training Adviser (Major-General) to the Pakistan Army, with the temporary rank of Major-General (January, 1951).

PROMOTIONS

Major-Generals.—Temporary Major-Generals or Brigadiers to be Major-Generals.—C. Bullard, C.B.E., B.Eng., M.I.Mech.E., M.I.E.E., A.D.C. (20th April, 1950); W. A. Lord, M.Eng., A.M.I.Mech.E. (28th July, 1950); H. F. S. King, C.B.E. (16th September, 1950); C. E. A. Firth, C.B.E., D.S.O. (13th November, 1950).

Brigadiers or Colonels to be temporary Major-Generals.—A. J. Beveridge, O.B.E., M.C., M.B. (1st November, 1950); D. Dawnay, D.S.O. (1st January, 1951); E. R. Benson, C.M.G., C.B.E. (1oth January, 1951).

FROM RETIRED PAY TO ACTIVE LIST

General Sir A. F. Andrew N. Thorne, K.C.B., C.M.G., D.S.O. (14th November, 1950).

RETIREMENTS

The following General Officer has retired:—Major-General V. Evelegh, C.B., D.S.O., O.B.E. (13th November, 1950).

EXERCISES IN WEST GERMANY

Winter exercises on a small scale which lasted five days began in the Soltau-Munsterlager area of the British Zone on 6th December. Elements of the Norwegian Army Command in Germany, the Danish Force in Germany, and the British Occupation Forces took part, and the Air Force of Occupation co-operated.

FORMATION OF THE NEW ARMY DIVISIONS

Consequent upon the decision to form three additional divisions, the War Office has announced that the following moves are taking place during January and February 1951:

- (a) 1st Battalion, Royal Warwickshire Regiment, from the United Kingdom to Austria to relieve 1st Battalion, East Yorkshire Regiment, which will move to B.A.O.R.
- (b) The 9th Lancers and 1st Battalion, King's Royal Rifle Corps, from the United Kingdom to B.A.O.R.
- (c) The 4th Regiment, Royal Artillery, 1st Battalion, The Royal Scots, and 1st Battalion, Royal Hampshire Regiment, from the United Kingdom to B.A.O.R.

(d) 1st Battalion, North Staffordshire Regiment, from the United Kingdom to Trieste to relieve 12 Anti Tank Regiment, R.A. Two batteries of this regiment will move to B.A.O.R. for conversion into a Light Anti-Aircraft Regiment. The remaining battery will return to the United Kingdom.

In addition all infantry Battalions at present employed in a training role will be relieved so as to enable them to take their place as active battalions in the Army.

MOVE OF ROYAL ARTILLERY (ANTI-AIRCRAFT) UNITS

The War Office has announced that the following units of the Army Group, Royal Artillery (Anti-Aircraft), moved from the United Kingdom to B.A.O.R. on 1st February, 1951:—

H.Q., 5 A.G.R.A. (A.A.), from Beacon Barracks, Bulford.

77 H.A.A. Regiment, R.A., from Marlborough Lines, Bulford.

23 A.A. Fire Command Troop, R.A., from Beacon Barracks, Bulford.

19 Control and Reporting Troop, R.A., from Orsett Camp, Grays, Essex.

REINFORCEMENT OF BERLIN GARRISON

The strengthening of the British Garrison in Berlin commenced on 16th November, with the arrival in the western sector of the city of a detachment of the 3rd King's Own Hussars, equipped with a squadron of Comet tanks.

MISCELLANEOUS

CAPTAIN-GENERAL, ROYAL REGIMENT OF ARTILLERY.—The King has been graciously pleased to approve that the title of Colonel-in-Chief, the Royal Regiment of Artillery shall be changed to that of Captain-General, the Royal Regiment of Artillery, with effect from 12th January, 1951.

IRISH GUARDS OLD COLOURS.—The old Colours of the 1st Battalion, Irish Guards, were laid up in Westminster Cathedral on Tuesday,12th December, for safe keeping until such time as they can be transferred to the Guards Chapel.

PRESENTATION TO PARACHUTE REGIMENT.—Vice-Admiral Earl Mountbatten has presented to the officers of the Parachute Regiment, at Aldershot, a silver statuette, the gift of the Army Commando Association. The statuette is a replica of the Commando soldier portrayed in the Combined War Memorial at Westminster Abbey. The statuette, which was received by Field-Marshal Lord Montgomery as Colonel Commandant of the Parachute Regiment, was presented to commemorate the spirit of comradeship between the Army Commandos and the Parachute Regiment, which was conspicuously shown in action on the banks of the River Orne in June, 1944.

ALDERSHOT TATTOO CANCELLED.—Mr. Strachey, Secretary of State for War, has announced in a Parliamentary written reply that it has been necessary to cancel the Aldershot Tattoo which it was proposed to hold in 1951. This decision, he stated, has been rendered unavoidable by the commitments which the Army will incur during 1951 and, in particular, by the need to complete the new divisions recently announced. The holding of smaller displays during 1951 is unlikely to be affected by this decision.

CADETS RIFLE SHOOTING.—The annual rifle shooting competition for the Earl Roberts Imperial Cadet trophy, organized by the Imperial Cadet Association, has been won by No. 323, Provencher School Cadet Corps, Canada, with a score of 312 out of a possible 320. The 7th Gloster Cadet Regt., R.A., Great Britain, was second with a score of 311. The winning cadet unit will hold the trophy for one year, and each member of the team will recieve a bronze medal.

This is a service rifle competition, carried out in four practices—five rounds deliberate (500 yards), five with movement (from 500 to 100 yards), five rounds rapid (200 yards), and five rounds snapshooting (200 yards). It is open to two cadet teams from each military district throughout the Empire.

MAIL FOR TROOPS IN KOREA.—The War Office states that recent examination of Air Mail posted to British troops in Korea shows that the general public is not aware that letters can only be sent by air for 24d. if they are written on a special form which can be obtained from any Post Office. This is known as the Forces Lightweight Letter.

Ordinary air mail letters cost 6d. for the first $1\frac{1}{2}$ ozs. and 6d. for each additional half ounce. Post cards cost 3d.

DOMINIONS AND COLONIES CANADA

ALLIANCES OF REGIMENTS AND CORPS.—The King has approved the alliances of the 1st Field Regiment, Royal Canadian Horse Artillery with the 1st Regiment, Royal Horse Artillery; and of the Royal Canadian Dental Corps with the Royal Army Dental Corps.

Unveiling of Memorial Plaque.—At a parade of the Royal Canadians Dragoons on 7th November, H.E. the Governor-General unveiled a Memorial Plaque on a field piece honouring three members of the Regiment who, 50 years previously, at Leliefontein, South Africa, so heroically defended the gun that each was awarded the Victoria Cross. Their names are: Lieut-General Sir Richard Turner, V.C., K.C.B., K.C.M.G., D.S.O.; Major H. Z. C. Cockburn, V.C., and Sergeant E. J. Holland, V.C.

CANADIAN ARMY STAFF COLLEGE.—Representatives of the armies of seven nations as well as Canadians were present on 15th January as students at the opening of the 1951 Course at the Canadian Army Staff College, Kingston, Ontario. Two of the students—from France and Italy—were the first to attend the Staff College under the training scheme which Canada is sponsoring on behalf of the North Atlantic Treaty Organization. The other oversea students included two each from Britain and the United States and one each from Australia, India and Pakistan.

STRENGTH OF THE ARMY ACTIVE, SPECIAL AND RESERVE FORCES.—The latest available figures show that the combined strength of the Active, Special and Reserve Forces of the Army is 76,546 all ranks, an increase of some 15,500 during the year.

Almost 10,000 former officers of Canada's 1939-45 War Army have indicated their willingness to serve again. All are members of the Supplementary Reserve. Of this number 9,193 have been accepted and placed on the Reserve of Officers.

CANADIAN ARMY SPECIAL FORCE.—This Force, after training for three months in Canada, moved for further training to Fort Lewis, Washington in the United States. One unit, the 2nd Battalion, Princess Patricia's Canadian Light Infantry, sailed for Korea on 25th November, arriving there on 18th December.

INCREASE IN THE NUMBER OF RESERVISTS ATTENDING FIELD TRAINING.—A total of 11,241 all ranks (2,595 officers and 8,646 men) of the Canadian Army Reserve Force attended Summer training camps in 1950. This figure represents an increase of slightly more than a thousand over the previous year's total.

AUSTRALIA

Honours And Awards.—The following awards were included in the New Year's Honours List:—

C.B.-Major-General J. S. Whitelaw, C.B.E.

K.B.E.-Lieut.-General V. A. H. Sturdee, C.B., C.B.E., D.S.O.

APPOINTMENTS AND PROMOTIONS.—Major-General V. C. Secombe, C.B.E., appointed G.O.C. Northern Command.

Brigadier B. W. Pulver, C.B.E., D.S.O., appointed Master-General of the Ordnance, with the temporary rank of Major-General (November, 1950).

Brigadier A. S. Wilson, C.B.E., Controller of Army Supplies and Development in the Department of Supply, has been promoted to the rank of temporary Major-General. RETIREMENTS.-Major-General R. H. Nimmo, C.B.E. (November, 1950).

COMMAND REORGANIZATION.—It is proposed to remove the 4th and 6th Military Districts from Southern Command, and to rename them the Central and Tasmanian Commands. It is also proposed to make the 7th Military District a Command, to be known as the Northern Territory Command.

NEW STATUS FOR THE CITIZEN MILITARY FORCE.—Mr. Menzies—the Australian Prime Minister, announced on 6th December that a drive was to be launched immediately to build up the Citizen Military Force to the establishment of 30,000 proposed in the Government's defence programme. So far, he said, recruiting had been concentrated on the Regular Army and the Air Force, but the C.M.F. with its changed status had a new important role to fill.

No Australian Imperial Force, he stated, would be enlisted were Australia required to send a force abroad to a third World War. The C.M.F. would fill the role formerly undertaken by the A.I.F. The major change had the complete support of the Government's military advisers. It explained why men joining the C.M.F. were required to enlist for service at home or abroad. The C.M.F. would be sent overseas only in the event of a major war.

PAKISTAN

CHANGE OF COMMANDER-IN-CHIEF

General Mahommed Ayub Khan, the first Pakistani to be Commander-in-Chief of the Pakistan Army, took over from General Sir Douglas Gracey on 17th January.

INDIA

LAYING UP OF THE KING'S COLOURS

On 26th January, 1950, India became a Sovereign Democratic Republic and, as a result, Royal Prefixes were dropped and it was no longer appropriate to carry the King's Colour on parade.

The decision was taken to lay up the 36 King's Colours at the National Defence Academy, Dehra Dun.

For this purpose a Ceremonial Parade was held in the Military Wing of the National Defence Academy on 23rd November, 1950. The High Commissioner—H. E. Lieut.-General Sir Archibald Nye, attended the parade as the representative of His Majesty the King. On his arrival the massed bands played "God Save the King," and he was met and conducted to his seat by General K. M. Cariappa, the Commander-in-Chief in India.

After the Trooping of the Colours (of the 1st (Para) Battalion, The Punjab Regiment, and the Indian Navy) and March Past in slow time, an address was given by the Defence Minister—Sardar Baldev Singh. The parade then formed a hollow square facing the Chetwode Building, and the Colours were marched off into the Chetwode Hall to the tune of "Auld Lang Syne".

The Commandant of the Academy stood on a dais at the end of the Hall and received each Colour in turn.

The Defence Minister then stood and asked the High Commissioner to convey to His Majesty the King the grateful thanks of the Government of India and of all the Regiments which participated in the parade, and to assure His Majesty of the high esteem in which the Colours would be held by all concerned.

Lieut.-General Sir Archibald Nye replied.

FOREIGN

EGYPT

RESIGNATION OF C-IN-C. AND RETIREMENT OF C.G.S.

It was announced on 12th November, that General Mohammed Haidar Pasha, Commander-in-Chief of the Army, had resigned and that General Osman el-Mal-di Pasha, Chief of the General Staff, had been placed on the retired list.

HUNGARY

New Chief of General Staff.—The appointment of Major-General Istvan Batz as Chief of the General Staff of the Hungarian Army, in succession to General Laszlo Solyom, was announced in Budapest on 6th October.

COMPULSORY MILITARY TRAINING FOR UNIVERSITY STUDENTS.—It was officially announced in Budapest on 15th December, that a Government decree had been signed introducing compulsory military training for all university students with effect from 1st February, 1951, with the aim of "securing the requirements of officers for the People's Army."

INDO-CHINA

HIGH COMMISSIONER AND C.-IN-C.

It was reported from Paris on 6th December, that General de Lattre de Tassigny had been appointed High Commissioner and C.-in-C. in Indo-China. In this dual role he has succeeded M. Leon Pignon and General Carpentier.

It was also stated that this appointment will not mean that General de Lattre de Tassigny will vacate his post of C.-in-C., Western Union Land Forces. His Chief-of-Staff, General Navereaux, as Deputy C.-in-C., Western Union Land Forces, will take his place during his absence.

UNITED STATES

New Commandant in Berlin.—It was announced on 15th January, that Major-General Maxwell D. Taylor, who is taking up an important appointment in the United States, is to be succeeded by Brigadier-General Lemuel Mathewson in February.

REINFORCEMENT OF BERLIN GARRISON.—The strengthening of the United States garrison in Berlin commenced on 16th November, with the arrival there of troops of 6th Infantry Regiment.

YUGOSLAVIA

TACTICAL EXERCISE

Western Service attachés, permanently stationed in Belgrade, were invited to attend a tactical exercise by mountain units of the Yugoslav Army which took place between 21st and 24th January "somewhere in Yugoslavia." The attachés were those of Britain, Canada, the United States, France, and Italy. It is understood that Cominform attachés were not invited.

Before the break with the Cominform, Western attachés had no contact with the Yugoslav Army. The invitations are looked upon as a further sign that the Yugoslavs have, within the last six months, become alive to the advantages of closer military contact with Western Countries, particularly in view of the rapid rearmament and hostile attitude of their Cominform neighbours.

AIR NOTES

H.M. THE KING

His Majesty the King has been pleased to approve the appointment of Her Royal Highness The Princess Royal, C.I., G.C.V.O., G.B.E., as Air Chief Commandant of the Princess Mary's Royal Air Force Nursing Service.

Her Royal Highness, The Princess Elizabeth, visited the Headquarters of Fighter Command at Stanmore on 17th November. She was shown the underground control room and witnessed a mock raid on the English Coast. She subsequently saw a display of formation and individual aerobatics by jet aircraft.

Her Royal Highness, The Duchess of Gloucester, visited Headquarters, Technical Training Command at Brampton on 16th November. She subsequently visited the R.A.F. and U.S.A.F. bomber base at Wyton.

TO BE AIDES-DE-CAMP TO THE KING.—Group Captain T. U. C. Shirley, C.B.E., A.M.I.E.E., vice Group Captain C. E. Maitland, D.F.C., A.F.C., retired (18th September, 1950); Group Captain F. J. A. Tanner, R.A.F. Regiment (30th October, 1950).

HONOURS AND AWARDS

The following awards were included in the New Year Honours List :-

G.C.B.—Air Chief Marshal Sir James Robb, K.C.B., K.B.E., D.S.O., D.F.C., A.F.C.

K.C.B.-Air Marshal C. R. Steele, C.B., D.F.C.

C.B.—Air Vice-Marshal W. A. D. Brooke, C.B.E.; Air Vice-Marshal D. Macfadyen, C.B.E.; Acting Air Vice-Marshal T. N. McEvoy, C.B.E.; Air Commodore C. E. Chilton, C.B.E.; Air Commodore W. L. Freebody, C.B.E.

D.B.E.—Air Commandant H. W. Cargill, R.R.C., K.H.N.S., P.M.R.A.F.N.S. K.B.E.—Acting Air Marshal T. A. Warne-Browne, C.B., C.B.E., D.S.C.

APPOINTMENTS

AIR MINISTRY.—Air Commodore T. N. McEvoy, C.B.E., appointed Assistant Chief of the Air Staff (Training) Air Ministry, with the acting rank of Air Vice-Marshal (7th November, 1950).

Group Captain T. U. C. Shirley, C.B.E., appointed Director of Servicing and Repairs, Air Ministry, with the acting rank of Air Commodore (November, 1950).

Air Commodore A. C. H. Sharp, D.S.O., A.F.C., appointed Director-General of Organization, Air Ministry, with the acting rank of Air Vice-Marshal (1st December, 1950).

Air Commodore V. G. A. Hatcher, O.B.E., A.F.C., appointed Director of Signals (Organization), Air Ministry (January, 1951).

Air Commodore P. S. Blockey, C.B.E., appointed Director of Technical Plans, Air Ministry (January, 1951).

Air Commodore F. E. Lipscomb appointed Deputy Director-General of Medical Services, Air Ministry (January, 1951).

Air Commodore J. H. Edwardes-Jones, C.B.E., D.F.C., A.F.C., appointed Director of Plans, Air Ministry (January, 1951).

Group Captain P. B. L. Potter, O.B.E., appointed Director of Hygiene and Research, Air Ministry, with the acting rank of Air Commodore (January, 1951).

UNITED KINGDOM.—Air Commodore L. Taylor appointed Senior Air Staff Officer at Headquarters No. 40 Group Maintenance Command, vice acting Air Commodore J. F. Young, C.B., M.M. (26th September, 1950). (Substituted for the notification in the November, 1950, JOURNAL).

Air Vice-Marshal H. G. White, O.B.E., appointed Air Officer Commanding No. 41 Group Maintenance Command (6th November, 1950).

Air Commodore A. F. Hutton, C.B.E., D.F.C., appointed Senior Technical Staff Officer at Headquarters, Coastal Command (27th November, 1950).

Group Captain M. Watson, C.B.E., appointed Chief Signals Officer at Headquarters, Fighter Command, with the acting rank of Air Commodore (December, 1950).

Air Commodore J. G. Elton appointed Commanding Officer No. 1 School of Technical Training (22nd January, 1951).

Air Commodore B. D. Nicholas appointed Air Officer Commanding No. 27 Group, Technical Training Command (January, 1951).

Air Commodore J. Marson appointed Air Officer Commanding No. 42 Group, Maintenance Command (January, 1951).

Group Captain G. N. E. Tindal-Carill-Worsley, C.B.E., appointed Senior Technical Staff Officer at Headquarters, Flying Training Command, with the acting rank of Air Commodore (January, 1951).

Group Captain R. B. Lees, C.B., C.B.E., D.F.C., A.D.C., appointed to command the Metropolitan Sector, Fighter Command, with the acting rank of Air Commodore (January, 1951).

Group Captain T. C. Dickens, C.B.E., appointed Assistant Air Officer in Charge of Administration at Headquarters, Fighter Command, with the acting rank of Air Commodore (January, 1951).

Air Commodore E. C. Farman, C.B.E., appointed Senior Air Staff Officer, Maintenance Command, with the acting rank of Air Vice-Marshal (5th February, 1951).

Air Vice-Marshal W. J. Seward, C.B., C.B.E., appointed Air Officer Commanding No. 61 (Eastern) Group, Home Command (February, 1951).

Air Commodore C. W. Gore, O.B.E., appointed Senior Air Staff Officer No. 61 (Eastern) Group, Home Command (February, 1951),

Air Vice-Marshal Sir Francis Mellersh, K.B.E., A.F.C., appointed Air Officer in Charge of Administration, Bomber Command (March, 1951).

Air Vice-Marshal J. D. Breakey, C.B., D.F.C., appointed Air Officer Commander No. 21 Group, Flying Training Command (March, 1951).

Western Union.—Air Vice-Marshal S. D. Macdonald, C.B.E., D.F.C., was placed on the Special Duty List from 7th November, 1950, having been selected for the newly created post of Inspector-General of Air Training, Western Union.

Group Captain F. J. St. G. Braitwaite, C.B.E., appointed Chairman of the Air Advisory Committee, Western Union Military Staff Committee with the acting rank of Air Commodore (January, 1951).

GERMANY.—Air Marshal Sir Thomas Williams, K.C.B., O.B.E., M.C., D.F.C., Commander-in-Chief B.A.F.O., who was to have taken up a new appointment as Air Officer Commanding-in-Chief, Home Command, on 15th March, is to remain in Germany until the late Summer.

Air Commodore J. R. Whitley, C.B., C.B.E., D.S.O., A.F.C., appointed Air Officer in charge of Administration, British Air Forces of Occupation, Germany, with the acting rank of Air Vice-Marshal (January, 1951).

Greece.—Air Commodore J. G. Hawtrey, C.B.E., appointed Head of the Royal Air Force Delegation and Air Officer Commanding the Royal Air Force in Greece (December, 1950).

MIDDLE-EAST.—Air Commodore N. Carter, C.B., D.F.C., appointed Senior Air Staff Officer, No. 205 Group, Middle East Air Force (January, 1951).

AIR NOTES

185

Air Commodore J. M. Kilpatrick, O.B.E., M.B., B.Ch., D.P.H., appointed Principal Medical Officer, Middle East Air Force, with the acting rank of Air Vice-Marshal (January,

PROMOTIONS

The following were included in the half-yearly promotions, with effect from 1st January, 1951:-

Air Vice-Marshal to Air Marshal .- R. Ivelaw-Chapman, C.B., C.B.E., D.F.C., A.F.C. (Acting Air Marshal); Sir Basil E. Embry, K.B.E., C.B., D.S.O., D.F.C., A.F.C. (Acting Air Marshal).

Air Commodore to Air Vice-Marshal .- A. C. H. Sharp, D.S.O., A.F.C. (Acting Air Vice-Marshal); G. E. Nicholetts, C.B., A.F.C.; T. N. McEvoy, C.B.E. (Acting Air Vice-Marshal); R. L. R. Atcherley, C.B., C.B.E., A.F.C. (Acting Air Vice-Marshal).

Group Captain to Air Commodore .- D. W. F. Bonham-Carter, C.B., D.F.C.; H. E. Nowell, C.B., O.B.E. (Acting Air Commodore); A. H. Wheeler, O.B.E. (Acting Air Commodore); T. C. Dickens, C.B.E. (Acting Air Commodore); D. N. Roberts, O.B.E., A.F.C. (Acting Air Commodore); B. C. Yarde, C.B.E.; W. J. Crisham, C.B.E. (Acting Air Commodore).

TECHNICAL BRANCH

Group Captain to Air Commodore. - R. L. Phillips, C.B.E., A.M.I.E.E. (Acting Air Commodore); G. N. E. Tindal-Carill-Worsley, C.B.E. (Acting Air Commodore).

EQUIPMENT BRANCH

Air Commodore to Air Vice-Marshal .- L. J. V. Bates, C.B., C.B.E. (Acting Air Vice-Marshal).

SECRETARIAL BRANCH

Group Officer to Air Commandant, W.R.A.F.-N. M. Salmon, O.B.E., A.D.C. (Acting Air Commandant).

MEDICAL BRANCH

Group Captain to Air Commodore.-F. E. Lipscomb, M.R.C.S., L.R.C.P., D.P.H., D.T.M. & H. (Acting Air Commodore).

RETIREMENTS

Air Vice-Marshal H. J. Roach, C.B., C.B.E., A.F.C., M.I.Mech.E. (1st January, 1951).

SPECIAL FLIGHTS AND EXERCISES

GOODWILL FLIGHTS.—The five Lincoln bombers and the Hastings transport which set out between 18th and 20th October on a series of goodwill flights, returned to their base at Manby on 16th and 17th November, having covered 100,000 miles and crossed 17 Countries in 600 flying hours.

It was subsequently confirmed by the Fedération Aéronautique Internationale that the official time taken by the "Aries III" on her record flight from London to Khartoum was 14 hours, 23 minutes and 10 seconds, representing a speed of 342.78 km.p.h. (213 m.p.h.).

On 3rd November, four Lancasters of R.A.F. Coastal Command left on a goodwill visit to Pakistan, where they participated in the Quetta Staff College combined operations exercise between 10th and 20th November. They returned to their base at Leuchars, Fife, at the end of November.

ORGANIZATION

AIR COUNCIL.—The Air Ministry announced on 29th January, that as from 1st February the departments of the Air Member for Supply and Organization and of the Air Member for Technical Services would be combined, in order that the equipment and engineering staffs should be under the control of one member of the Air Council.

Air Chief Marshal Sir William Dickson, K.B.E., C.B., D.S.O., A.F.C., will in future be in charge of Technical Services, while remaining Air Member for Supply and Organization. He will be assisted by a Controller of Engineering and Equipment who will be responsible to him for directing and co-ordinating the functions of the Directors-General of Technical Services and Equipment. The first holder of this appointment will be Air Vice-Marshal C. W. Weedon, C.B., C.B.E., M.A., A.F.R.Ae.S. with the acting rank of Air Marshal.

Western Union.—An Inspectorate-General of Air Training, Western Union, has been formed. It is responsible to the Chiefs of Staff for the inspection of and reporting on all air training establishments of the Western Union Powers. Air Vice-Marshal S. D. Macdonald, C.B.E., D.F.C. has been appointed Inspector-General, with a Senior French Air Force officer as his deputy, and their headquarters is in London.

The Western Union examining squadron, referred to in Air Notes for February 1950, will be the principal medium through which this inspection will be achieved.

ROYAL AIR FORCE RESERVE OF OFFICERS.—His Majesty the King has been graciously pleased to approve that the Reserve of Air Force Officers shall in future be known by the title "Royal Air Force Reserve of Officers."

Home Command.—As from 1st February, No. 65 (London) Group and No. 61 (Eastern) Group were combined. The Air Officer Commanding No. 61 Group took over responsibility for all units in No. 65 Group area, which covered the City of London, the administrative County of London, and the County of Middlesex, which were added to the Counties of Bedford, Cambridge, Essex, Hertford, Huntingdon, Kent, Norfolk, Suffolk, Surrey and Sussex, hitherto covered by No. 61 Group.

All Groups of the newly named Home Command now cover areas equivalent to Army Command areas.

PERSONNEL

PASSING OUT PARADES.—The first two hundred National Service airmen to be trained at the new R.A.F. School of Recruit Training at Hednesford, Staffordshire, were inspected on 29th November, by Air Vice-Marshal B. V. Reynolds, Air Officer Commanding No. 22 Group, Technical Training Command.

Dress.—A sarong of light blue interwoven cloth, with a vertical panel worn to the rear in the R.A.F. colours of maroon, light blue and dark blue, has been approved as the walking-out dress for the Royal Air Force Regiment (Malaya).

The sarong is worn from the waist to a little below the knees over white poplin long trousers made in the Malay style. The walking-out dress is completed by a white poplin shirt in Malay style and a blue-black velvet Malay cap on the front of which is worn the airman's badge,

WOMEN'S ROYAL AIR FORCE

DIRECTOR'S OVERSEAS TOUR.—Air Commandant N. M. Salmon, Director of the W.R.A.F. left England on 12th November by air, on a visit to Far East and Middle East Royal Air Force units where members of the Women's Royal Air Force are serving.

FIGHTER CONTROL BRANCH.—Women candidates are now eligible for short service commissions in the Fighter Control Branch of the Royal Air Force. Candidates must be 18½ years of age and have been educated at least to School Certificate standard. After examination by an Air Ministry Selection Board, selected candidates will enlist as airwomen, and will be commissioned after ten months' training. Successful candidates will be appointed in the rank of Pilot Officer to short service commissions for 5 years' Regular and 4 years' Reserve service and will be eligible for extension of service and for considerations for permanent commissions.

Subject to satisfactory service and passing examinations, promotion to Flying Officer will take place after two years, and to Flight Officer after about six years.

AIR NOTES 187

W.R.A.F.V.R.—Young women who are interested in flying and hold a Private Pilot's Licence can now apply to join the W.R.A.F.V.R. as pilots and, if they are selected, arrangements will be made for them to undergo training at the Reserve Flying Schools which have been set up in various parts of the Country.

Those who are interested in this scheme and are suitably qualified should apply or re-apply to the Commanding Officer of the nearest R.A.F. Reserve Centre who will be responsible for the selection of candidates in his area.

The pilot section of the W.R.A.F.V.R. was established in 1947, and there are already some fifty members. The purpose of the section is to provide the Royal Air Force with a reserve of women pilots who can be called upon, in the event of emergency, for non-combatant flying duties, such as the work of ferrying and communications flying.

RESERVE FORCES

COOPER TROPHY.—No. 600 (City of London) Squadron, R.Aux.A.F. was the winner of the 1950 race for the award of the Cooper Trophy. This was presented by Marshal of the Royal Air Force, Sir John Slessor, Chief of the Air Staff, on Sunday, 10th December at Biggin Hill

The trophy was first presented by Wing Commander Geoffrey Cooper in 1948, and is competed for annually by squadrons of the Royal Auxiliary Air Force.

HACK TROPHY.—The Queen's University Air Squadron, Belfast, was the winner of the Hack Trophy for 1950. The trophy, presented by Wing Commander E. J. Hack is competed for annually by University Air Squadrons of the R.A.F.V.R., and was first awarded in 1942 to the most efficient squadron.

University Air Squadrons.—Three new University Air Squadrons are being established at Hull, Bristol and Liverpool. They are Units of the Royal Air Force Volunteer Reserve.

Reserve Transport Squadron.—Following the decision in September to form Reserve Transport Squadrons, the first squadron was inaugurated at Blackbushe on 15th December

AIR TRAINING CORPS

WING HEADQUARTERS.—Regular R.A.F. officers are to be relieved as adjutants at A.T.C. Wing Headquarters by civilian adjutants. Selected candidates, who will generally be officers recently retired from the R.A.F. will be appointed to commissions in Class "J" of the Reserve of Air Force Officers, in the rank of Flight Lieutenant. They will wear R.A.F. uniform.

Training.—A.T.C. cadets who have learned to fly under the A.T.C. scholarship scheme may now continue their flying training at Reserve Flying Schools as aircrew of the R.A.F.V.R., pending their call-up for National Services.

Hitherto all candidates for R.A.F.V.R. aircrew have had to be up to the Royal Air Force basic standard of flying.

MATERIAL

CANBERRA AIRCRAFT.—On 19th January, Mr. Menzies—Prime Minister for Australia, named the first R.A.F. jet bomber the Canberra, at Biggin Hill. The ceremony was attended by United Kingdom and Australian Government representatives and senior officers of the R.A.F., R.A.A.F. and the U.S.A.F.

METEOROLOGICAL SQUADRON.—Handley Page Hastings aircraft are now replacing Halifaxes in the R.A.F. Meteorological Squadron based at Aldergrove, Northern Ireland. The more spacious layout enables the meteorological air observers to work with more accuracy and efficiency, and permits observations to be made over a wider range of distance and height.

DOMINIONS

CANADA

No. 421 SQUADRON, R.C.A.F.—This squadron, known as the Red Indian Fighter Squadron has come to England for training. Further squadrons are expected to undergo operational training in the United Kingdom and possibly in other North Atlantic Treaty Countries in rotation, for periods of several months.

MUSTANG AIRCRAFT.—A hundred North American Mustang fighters have been purchased by the R.C.A.F. from the United States. These aircraft are intended to fill the gap until jet fighters being built in Canada are completed.

New Flying School.—A new flying school, known as No. 2 Flying Training School, was opened at the beginning of December at Gimli, Manitoba.

A new flying station is also to be established at North Bay, Ontario. This airfield will be used for operational training and the R.C.A.F. expect to move in by the end of this year.

AUSTRALIA

Honours and Awards.—The following award was included in the New Year Honours List:—

C.B.E.-Air Vice-Marshal J. E. Hewitt, O.B.E., R.A.A.F.

PILOTLESS JET AIRCRAFT.—It was announced on 8th November, that the first jet aircraft to be designed at the Government's aircraft factory at Fisherman's Bend, was undergoing flight tests at Woomera, the guided missile experimental range. It is understood to be a target aircraft which can be controlled by radio from the ground, and will be used as a target for all types of anti-aircraft projectiles, including guided missiles.

Mr. Menzies—The Prime Minister, announced in December that Gloster Meteor 8 fighter aircraft are to be purchased for the Royal Australian Air Force.

NEW ZEALAND

Honours And Awards.—The following award was included in the New Year Honours List:—

C.B.—Air Commodore S. Wallingford, C.B.E., R.N.Z.A.F.

APPOINTMENT.—The New Zealand Government Office in London has announced the appointment of Air Commodore C. E. Kay, C.B.E., D.F.C. as Air Officer Commanding Royal New Zealand Air Force Headquarters, London.

VAMPIRE FIGHTERS.—The Royal New Zealand Air Force has adopted the De Havilland Vampire jet fighter. The airframes and their Goblin turbo-jet engines will be made in this Country.

PAKISTAN

Honours and Awards.—The following award was included in the New Year Honours List:—

C.B.E.—Acting Air Commodore R. G. Bowditch, R.A.F.

C.-IN-C. ROYAL PAKISTAN AIR FORCE.—The Government has placed at the disposal of Pakistan the services of Air Commodore L. W. Cannon, C.B.E., R.A.F., for appointment as Commander-in-Chief of the Royal Pakistan Air Force, in succession to Air Vice-Marshal R. L. R. Atcherley, C.B.E., A.F.C., who has held the post since February, 1949.

INDIA

HONORARY AIR MARSHAL IN THE INDIAN AIR FORCE

The Government of India have appointed Air Marshal Sir Thomas Elmhirst, K.B.E., C.B., A.F.C., R.A.F. (retired) to a commission in the Indian Air Force, in the honorary

rank of Air Marshal, with effect from 16th October, 1950. The appointment is in recognition of his valuable services to the Indian Air Force which he commanded from 16th August, 1947, until 22nd February, 1950.

FOREIGN

UNITED STATES

ORGANIZATION OF THE CONTINENTAL AIR COMMAND.—Following the arrival in Germany of Lieut.-General Lauris Norstad, the new Commanding General of the United States Air Forces in Europe, a change was announced in the organization of the European Air Command. This appears to be a step in the formation of General Eisenhower's supreme Headquarters, and to be part of a potential framework for larger forces.

The Twelfth Air Force is being re-established to incorporate all the Air Force unit s in Germany and Austria and, together with the 3rd Air Division in Britain, will form component parts of the United States Air Force in Europe, which embraces the European United Kingdom and Mediterranean area.

Major-General Douglass is to command the Twelfth Air Force, but his operational elements, including the tactical elements of the 2nd Air Division will, under the principle of unified command, remain under the control of the Commander-in-Chief for Europe, at Heidelberg.

JET FIGHTERS FOR GERMANY.—The United States Air Force announced on 7th November that it had completed the largest transatlantic mass flight of jet fighters to re-equip two groups based in Germany. A total of 180 Republic F.84E Thunder jet fighters were flown to Germany in two groups of 89 and 91 aircraft, and they will replace the F.47 Thunderbolt piston engine aircraft and the F.80 Shooting Star jet fighters of 36 and 86 Fighter-Bomber Groups.

TRAINING FLIGHT.—Six 10-engined B.36 aircraft—the World's largest bombers—landed at the R.A.F. Station Lakenheath, Suffolk, on 16th January, after a 5,000 mile flight from their home base at Fort Worth, Texas, to which they returned four days later.

The flight was part of the long-range navigational and cruise control training programme of units of the United States Strategic Air Command.

e

r

REVIEWS OF BOOKS

GENERAL

Brassey's Annual. Edited by Rear-Admiral H. G. Thursfield. (William Clowes & Sons, Ltd.) 50s.

After sixty years, as one of the best known Naval reference works, Brassey's Naval Annual has this year been expanded into Brassey's Annual: The Armed Forces Year Book, with a view to covering the needs of all three Services.

The reasons given for this change are that the existence of an Annual devoted to one Service alone is to-day an anachronism, and that other books of reference now cater for the material development in the Navy.

The value of the old *Brassey* lay in the fact that two-thirds of its contents consisted of pure reference material, and the remainder contained articles on naval material development and on foreign Navies; also of value from the same point of view.

In the new Brassey only one quarter is devoted to reference matter and most of this can be more easily found in standard reference works of a wide circulation. It has thus lost its appeal as a reference work and claims the attention of a wider public on the value of its articles alone. There are 27 such articles. Ten are devoted to military subjects, in the widest meaning of the words, including a review of the Services in 1949-50 by the late Captain E. Altham, R.N. who recently died so suddenly and whose work will be missed by so many Service journals. The remainder are grouped into three Sections to meet individual Service needs, and each contains articles on equipment trends, conditions of service, and foreign service matters.

Of the subjects discussed, not more than half can be reviewed annually, and it may be hard in the future to maintain the high standard of quality and variety which this volume sets.

Sword and Pen. By Major-General A. C. Duff, C.B., O.B.E., M.C. (Gale and Polden) 7s. 6d.

The author is one of that small number of senior officers who held high administrative staff appointments both at home and in the field throughout the late war. These included Deputy Quartermaster-General at the War Office and Chief Administrative Staff Officer to Field-Marshal Alexander in Italy.

He is thus well qualified to discuss the many problems facing the Army of to-day. In this collection of ten essays he deals with the more urgent problems of administration and organization ranging from military co-operation within the Commonwealth to the ever-present and increasing problem of the administrative tail which threatens to wag the tactical dog.

The value of this little volume lies not so much in the conclusions drawn by the author, as in the attention which he focuses on problems which should be in the minds of all officers of both the Regular and Territorial Armies. In some cases, indeed, he refrains from drawing his own conclusions and merely adduces arguments for and against a particular proposal.

The chapters devoted to the shortage of officers and recruits are of timely interest. His criticisms of officer personnel selection boards and the time spent on the purely educational training of men will no doubt evoke a sympathetic reaction in many quarters.

It is curious that, in quoting the comparatively short career offered by the Service, and the fact that soldiering *per se* is no passport to civilian employment as one reason for the shortage of recruits, he does not apply the same argument to the case of officers. Surely in their case the argument applies with equal, if not greater force?

General Duff expresses disappointment at the re-organization of the Territorial Army:—"At present the T.A. is run by the County Associations, with some help from

the Regular Army. Would it not be better if the T.A. were run by the Regular Army, with some help from the County Associations?"

Regarding the overloading of the War Office and the lack of decentralization, the author appears to despair of any major improvement so long as the present system of Parliamentary Control of expenditure maintains.

This book forms a notable contribution to military literature; and is written in admirable style by one who has made his mark both as a soldier and an author. General Sir Brian Robertson contributes a Foreword.

The Purse and the Sword. By Elias Huzar. (Cornell University Press, London: Geoffrey Cumberledge.) 36s.

The author is Associate Professor of Government at Cornell University. The subtitle of his book is "Control of the Army by Congress through Military Appropriations, 1933–1950"

In his own words "it is a case study of the appropriations process in Congress with special reference to the Military Establishment." Under the Constitution of the United States, Congress is authorized "to raise and support Armies" with the condition that "no appropriation of money to that use shall be for a longer period than two years." In practice appropriations for personnel of the American Army are made annually by Congress for one year only, so that in effect Congressional procedure is in principle akin to our own Parliamentary procedure.

This similarity of procedure is carried further by the division of responsibility into two stages, the handling of the bill that authorizes the raising of the Armed Forces (compare our Army and Air Force (Annual) Act) and the measures which authorize the expenditure of funds to maintain those Forces (compare our Annual Estimates).

This volume deals with the latter stage. The main task of handling the Military Budget, after it has been prepared by the General Staff and War Department and has received the approval of the President, falls on the Appropriations Committees of the House of Representatives and the Senate. It is their responsibility to consider it in detail, and where necessary recommend alterations before submitting it to Congress.

It is interesting to note the important part which military officers, from the Chief of the Staff down to the heads of arms and services and their staff officers, play as witnesses before the Appropriations Committees. Furthermore we read that "in dealing with military appropriations Congressmen have shown a great deal of respect for the judgement of professional Army officers."

The author has based his work on an exhaustive scrutiny of the reports of these Committees; and the book is liberally interspersed with extracts from them to support the conclusions which he reaches. The care and detail with which the House of Representatives Military Sub-Committee scrutinizes the military budget is indicated by the extent of these published reports, which in recent years have amounted to 1200-1700 pages. No item appears to have been too small to escape their eagle eyes, though in major matters involving supply of armaments Members of Congress have naturally been handicapped by lack of technical knowledge, and have accepted the recommendations of the General Staff without much argument. Thus we read of petty economies effected in such matters as allowances for A.D.C.s, whilst vast appropriations for guns or aircraft are passed with a minimum of comment. The Senate Sub-Committee "have almost always been more generous to the Military Establishment than the House has been." acted as a kind of "court of appeal" and not infrequently items "cut" by the House have been restored by the Senate Sub-Committee. Indeed in some cases the latter have even increased appropriations above the figure approved by the President. Naturally during the War the purse strings were released and the Sub-Committees had to restrict their scrutiny to matters mainly affecting the distribution of manpower and its most effective use for the prosecution of the war effort. But in 1946 full control was restored.

wal

8 &

for

this

alue s, in late issed meet is of

y be

ative

fficer

r. In and ever-

ithor, fficers drawicular

cerest.
courely
carters.
cervice,
con for
fficers.

itorial from The Author's conclusion is that the weakest point of the present system of Congressional Control of the Armed Forces lies in its inability to correct effectively weaknesses or inefficiency in military administration except through the purse strings. "The principal functions of the Appropriations Committee is to examine budgets, not to prepare them." Congressmen are not experts in military affairs and they must to a large extent rely on the recommendations of the military administrators. The most effective control of the sword through the purse is, therefore, to ensure that those who wield the sword are in every respect fully qualified to do so.

This volume runs into over 400 pages. It could well have been compressed into half that number, for there is much repetition of the same arguments and conclusions. One is left with a fellow-feeling for the member of the House Sub-Committee on Military Appropriations who remarked of the budget "I just want this representation made more simple and easy to grasp."

Flags for Ship Modellers and Marine Artists. By Alec A. Purves. (Percival Marshall and Co., Ltd.) 3s. 6d.

This small book, written by one of our Members, is not intended for the flag student or expert, but for the craftsman; and it is also of considerable interest to the layman who may not before have given much thought to the detail of the flags which can, if incorrect, mar an otherwise accurate and beautiful model of any ship, be she a man-of-war or a merchantman.

Apart from enumerating possible sources of information regarding flags, and from giving suggestions regarding materials for making them, the booklet gives a history of English flags, pendants, ensigns, standards and banners from Tudor times to modern days, together with those of other maritime countries, and finally includes a chapter on signal codes.

The author provides a comprehensive Colour Key as a guide to the many illustrations which could not be reproduced in colour for reasons of economy.

The Baton. By Wilfrid C. Rundle. (William Clowes and Son.) 7s. 6d.

In the Foreword it is said that the author is to be congratulated for assembling the maximum amount of data in the minimum number of words. This is true, for Mr. Rundle fills his eighty pages of easy reading with a wealth of information regarding the origin of the Marshalate, which he illustrates with short biographical notes on some famous Field-Marshals. The book is not confined to Great Britain, but discusses in some detail France, before and after the Revolution, Austria and Germany.

Although Napoleon created several Marshals in command of field forces, in Great Britain up till the First World War this was rare, and General officers were normally promoted Field-Marshal in recognition of past services. The Duke of Wellington, Lord Raglan and Earl Roberts were among the few to hold this appointment before they retired from active service.

It is unfortunate that alongside the interesting origin of the titles Marshal and Constable there is not given an explanation of the origin of the Field-Marshal's Baton.

An Appendix gives the list of British Field-Marshals from 1736 until 1949, when General Sir William Slim was appointed Chief of the Imperial General Staff and promoted to the rank of Field-Marshal.

NAVAL

Jane's Fighting Ships, 1950-51. Edited by Raymond V. B. Blackman, A.M.I.N.A., A.I.Mar.E. (Sampson Low, Marston and Co., Ltd.) 3gns.

The publication of Jane's Fighting Ships, always an event among those who follow the rise and fall of navies, comes this year at a time of particular interest. It reflects the start of the now universal rearmament going on all over the World, with increases shown

in most of the foreign navies, either by new building or by the bringing torward of ships from reserve.

nesses nesses ncipal

hem."

ly on

of the

are in

to half

One is

e more

ercival

tudent

n who

orrect.

r or a

d from

tory of

n days,

signal

rations

ing the

Rundle

rigin of

Field-

France,

Great

ormally

a, Lord

retired

al and

Baton.

, when

omoted

I.N.A.,

low the

cts the

shown

This new edition is notable, too, for its promotion of the aircraft carrier to the leading position among ships of war. It is not so many years ago—in 1916—that Jane noted the arrival of a new class of vessel, listing among miscellaneous vessels the "Ark Royal" as an Aero Depot Ship. It was not until the 1924 issue that carriers were promoted to occupy the pages immediately following battleships and battlecruisers, and there they remained until in the present volume they are placed first in order of seniority, taking at last, as many will think, their rightful place in the naval heirarchy. It is a reflection of the rapid growth and importance of the air arm, and a final recognition of the value of the aeroplane in the present conception of seapower.

The one notable exception in the general scramble for bigger navies is Great Britain, where there has, in fact, been a slight reduction in the total naval strength immediately available in an emergency. The new carriers are still not completed, though the "Eagle" should be operational during this year, and the "Ark Royal" by the end of 1952. Much the same state of affairs exists among the new light fleet carriers. The "Albion," "Bulwark," and "Centaur" are being taken in hand for completion during 1952, while the fourth ship of this class, the "Hermes," remains unlaunched after six and a half years on the stocks. The "Hercules," "Leviathan" and "Powerful," all laid down in 1943 and launched in 1945, still lie as useless hulks, no work having been carried out on them since 1946.

Many readers of the new Jane will note with some regret the final passing of the 10,000 ton County class cruisers, those fine ships with almost more than their share of good looks. Of the last three of this class the "Norfolk," of Yangtze River fame, has gone for scrap, the "Cumberland" is being converted into a trials ship, and the "Devonshire" has been reduced to a training ship. Great Britain now has but 24 cruisers, as compared with 60 at the beginning of the War in 1939. There are no signs of activity to herald the early arrival of the three new cruisers, "Blake," "Tiger," and "Defence" which, though laid down nearly ten years ago, are still no nearer completion.

The same unhappy story can be found in British submarines. Seven have been scrapped during the past year and two more are due to follow them. There have been no replacements during 1950, and the total strength of 57—32 active and 25 in reserve—is less than in 1939.

In contradistinction to the British navy, those pages of Jane which deal with the United States tell a much more vigorous story. They also show that the United States still leads the World in naval strength to an overwhelming degree. The total strength of the fleet, of which nearly half is fully operational, is now 103 carriers, 15 battleships, 71 cruisers, 595 destroyers and destroyer escorts, 187 submarines, 217 minelayers and minesweepers, 176 patrol vessels, 945 amphibious ships, 553 fleet auxiliaries, 1,724 service craft, and 74 drydocks, a total of 4,660 naval vessels.

Events during the last two or three months have naturally overtaken this publication of Jane, and the recently announced new programme of construction is, of course, not fully mentioned, though the "addenda" pages include the giant flush-deck carrier of 57,500 tons. It is to be named after Mr. James V. Forrestal, a former Secretary of the Navy and Secretary of Defence, who authorized the first of the giants, the 60,000-ton "United States," which was later cancelled. But even without the whole of the new programme, the United States Navy, as detailed in Jane, is a vastly impressive affair, and the wealth of illustrations and deck plans gives, even to the most casual student of naval affairs, a remarkably comprehensive picture of U.S. naval strength.

From the United States one turns, almost automatically in the present World situation, to those pages which illustrate the navy of Russia. And here one comes up against a conflict of evidence which the silence behind the iron curtain does nothing to clarify. The editor of *Jane*, sifting the evidence and piecing together the jigsaw puzzle of

Russian naval activity, has produced what is probably the most reliable all-round description of the new Russian battleships. But until the curtain lifts a little, or a photograph is smuggled out, the new ships are likely to remain more of a conjecture than a fact.

The Russian navy is certainly something of an enigma. Alongside the new ships, still shrouded in secrecy but undoubtedly modern and powerful in armament, Russia clings to her crocks. Our old friends, the "Ganjut" and "Sevastopol," with their queer trunked forward funnel, still make their perennial appearance. The new cruisers take their place alongside such elderly aunts as the "Krasni Kavkaz" and the "Krasni Krim."

The bogey of Russian submarine construction still remains, even if the planned construction of 1,000 sea-going craft seems to have been slowed down a little. Jane gives the present operational strength as 350-370, little change from last year. It is probable that the original figure of 1,000 was too ambitious at the time and beyond the capacity of Soviet shipyards, even with the aid of prefabrication. At the moment 120 new boats are reported to be under construction. It is, of course, beyond the scope of Jane to comment on the implication of this great underwater fleet, but the lay reader should remember that submarines call for specially skilled crews and that numbers alone do not invariably represent great strength.

There are some newcomers to the pages of Jane this year, notably Israel and Indonesia. South Korea also makes a first appearance, together with a resuscitated Japanese navy which consists of 125 small craft mainly employed for police purposes and as weather ships.

This new edition of Jane is fully up to the high standard of accuracy set by its distinguished predecessors. It has a large number of new photographs and, pictorially, has been brought up-to-date in splendid fashion. It is still the naval "bible," and quite indispensible to the student of modern naval affairs. Mr. Blackman is to be congratulated on a notable achievement.

ARMY

The History of the XIIth Royal Lancers (Prince of Wales.) By Captain P. F. Stewart M.C. (Geoffrey Cumberlege, Oxford University Press.) 30s.

Raised in 1715, this famous Regiment was sent to Ireland three years later and remained in that Country for seventy-five years! Thereafter, the reader is guided by an able and fluent pen through many countries and campaigns; Corsica, Italy and Portugal at the end of the XVIIIth Century; Egypt, under Sir Ralph Abercrombie; Walcheren and the Peninsula; Waterloo; the Kaffir and Basuto Wars; the Crimea and the Indian Muntiny; the South African War, 1899-1902; the 1914-18 War and the recent War, in France, the Desert and Italy.

Despite this imposing list and the adequacy with which each war is treated, space is also found for periods of peacetime soldiering; for Regimental achievements in the field of sport; for those anecdotes concerning army life of which every regiment has a store; and for many first-class maps and illustrations which make the clearest narrative easier to follow.

In his Foreword the author expresses the hope that the most important fact of all will emerge from the pages: that it is not the individual man or the individual act which matters, but the spirit, of which the man is the representative and the act the reflection. He need have no fears on that account; few readers could think otherwise after finishing this story.

The History of the Guides. Part II 1922-1947. By Lieut,-General Sir George MacMunn, K.C.B., K.S.C.I., D.S.O. (Gale and Polden, Ltd., Aldershot.) 30s.

In relating this story of the 10th Cavalry (Q.V.O. Guides) and the 5th/12th Frontier Force Regiment (Q.V.O. Guides Infantry) the author is careful to put the reader into the

h

S,

ia

ir

rs

ni

ed

es

of

re

nt

at ly

ose er ts y,

t-

rt

ad an al en ne

is ld ;

ch n.

ge

er

picture with brief outlines of the important events which are contained in Part I of the Regimental History—from the raising of the Corps in 1846 by Lieutenant Harry Lumsden until 1922, when both Cavalry and Infantry were together at their own cantonment Mardan after their return from the 1914–1918 War.

The history includes the exploits of the Cavalry and Infantry between the Wars; during the disturbances around Peshawar and the Yuzafzai Border in 1930 and 1931; during operations North of the Khyber, 1933–1935; and during the Waziristan Campaigns 1936–1937.

The chapters dealing with the 1939-1945 War tell of the Cavalry and Infantry in Iraq and Persia; the Cavalry in North Africa; and the long years spent by the Infantry with Paiforce.

The author also finds room to describe domestic occasions such as the Reunion and Mardan Week, 1939, and a chapter is devoted to polo.

The volume, which is plentifully illustrated, contains some useful maps and plans, and there are several appendices.

A STATE OF THE PROPERTY OF THE

ADDITIONS TO THE LIBRARY

(*Books for Reference in the Library only)

GENERAL

- *Brassey's Annual. The Armed Forces Year-book 1950. Edited by Rear-Admiral H. G. Thursfield. Royal 8vo. 363 pages. (William Clowes, 1950.) 5os. Presented by the Publishers. (See Review in this JOURNAL.)
- ARMS AND THE MEN. The Second World War, 1939-1945. By Ian Hay. Demy 8vo. 330 pages. (H.M.S.O., 1950.) 10s. 6d.
- Defence in the Cold War. The Task for the Free World. Report by Chatham House Study Group. Demy 8vo. 123 pages. (Royal Institute of International Affairs, 1950.) 5s. (See Review Article in this JOURNAL.)
- CENTRAL AND SOUTH EAST EUROPE 1945-1948. Edited by R. R. Betts. Demy 8vo. 227 pages. (Royal Institute of International Affairs, 1950.) 18s.
- KOREA TODAY. By George M. McCune with the collaboration of Arthur L. Grey, Jr. Large post 8vo. 372 pages. (Allen and Unwin, 1950.) 25s.
- DOCUMENTS ON BRITISH FOREIGN POLICY. Third Series. Volume III. 1938-9. Edited by E. L. Woodward and Rohan Butler, assisted by Margaret Lambert. Royal 8vo. 677 pages. (H.M.S.O., 1950.) 27s. 6d.
- Principles and Methods of Colonial Administration. Colston Papers based on a Symposium promoted by the Colston Research Society and the University of Bristol. Crown 4to. 252 pages. (Butterworths Scientific Publications, 1950.) 30s.
- ATOMIC ENERGY FOR THE LAYMAN. By Sir Arthur L. Dixon. Crown 8vo. 221 pages. (Chantry Publications, 1950.) 8s. 6d. Presented by the Publishers.
- The Defence of Minorca 1756. By T. H. McGuffie. Pamphlet. 9 pages. (Reprinted from the Bulletin of the University of London Institute of Historical Research, Autumn, 1950.) Presented by the Author.
- THE AGE OF ELEGANCE 1812-1822. By Arthur Bryant. Demy 8vo. 450 pages. (Collins, 1950.) 15s.
- BOUTELL'S HERALDRY. Revised by C. W. Scott-Giles. Royal 8vo. 316 pages. (Warne, 1950.) 42s.
- CRUSADER CASTLES. A brief study in the military architecture of the Crusades. By Robin Fedden. Foolscap 4to. 96 pages. (Art and Technics, 1950.) 15s.
- The Rise of the Basuto. By G. Tylden. Demy 8vo. 270 pages. (Juta, Cape Town, 1950.) 25s. Presented by the Publishers.

 This is a history of the people of Basutoland from 1824 to the present time.
- The Frogmen. The Story of the Wartime Underwater Operators. By T. J. Waldron and James Gleeson. Demy 8vo. 191 pages. (Evans, 1950.) 12s. 6d.
- STOLEN JOURNEY. By Oliver Philpot. Large post 8vo. 412 pages. (Hodder and Stoughton, 1950.) 15s.
- WINGLESS VICTORY. The Story of Sir Basil Embry's Escape from Occupied France in the Summer of 1940. By Anthony Richardson. Demy 8vo. 256 pages. (Odhams, 1950.) 9s. 6d.
- FLORENCE NIGHTINGALE 1820-1910. By Cecil Woodham-Smith. Demy 8vo. 615 pages. (Constable, 1950.) 15s.
- NAGA PATH. By Ursula Graham Bower. Demy 8vo. 260 pages. (Murray, 1950.) 16s.
- CHAPTERS OF LIFE. By Sir Charles Petrie. Medium 8vo. 318 pages. (Eyre and Spottiswoode, 1950.) 16s.

- CROCE, THE KING AND THE ALLIES. Extracts from a Diary by Benedetto Croce. July, 1943—June, 1944. Demy 8vo. 158 pages. (Allen and Unwin, 1950.) 12s. 6d.
- THE FUEL OF THE FIRE. By Douglas Grant. Demy 8vo. 236 pages. (Cresset Press, 1950.) 12s. 6d.
- To Hell and Back. By Audie Murphy. Crown 8vo. 282 pages. (Hammond, 1950.) 9s. 6d.
- Under the Cabin Lamp. A Yachtsman's Gossip. By Sir Alker Tripp. Crown 4to. 167 pages. (Iliffe, 1950.) 21s.
- Boswell's London Journal, 1762-63. Medium 8vo. 370 pages. (Heinemann, 1950.) 21s.
- OPERATION HEARTBREAK. By Duff Cooper. Large post 8vo. 166 pages. (Rupert Hart-Davis, 1950.) 8s. 6d.
- Across the River and into the Trees. By Ernest Hemingway. Crown 8vo. 254 pages. (Cape, 1950). 9s. 6d.
- FLAGS FOR SHIP MODELLERS AND MARINE ARTISTS. By Alec A. Purves. Crown 8vo. 84 pages. (Percival Marshall, 1950.) 3s. 6d. Presented by the Publishers. (See Review in this Journal.)

i

â

y

Š.

The Baton. An Historical Study of the Marshalate. By Wilfred Charles Rundle. Demy 8vo. 81 pages. (Clowes, 1950.) 7s. 6d. Presented by the Publishers. (See Review in this JOURNAL.)

NAVAL

- *The Sergison Papers. Edited by Commander R. D. Merriman, R.I.N. Medium 8vo. 382 pages. (Navy Records Society, 1950.)
- *Jane's Fighting Ships, 1950-1951. Edited by Raymond V. B. Blackman. Ob. fol. 586 pages. (Sampson Low, 1950.) 63s. Presented by the Publishers. (See Review in this Journal.)
- SELECT NAVAL DOCUMENTS. Edited by H. W. Hodges and E. A. Hughes. Crown 8vo. 227 pages. (Cambridge University Press, 1922.)
- YANGTSE INCIDENT. The Story of H.M.S. "Amethyst", April 20, 1949, to July 31, 1949. Large post 8vo. 199 pages. (Harrap, 1950.) 10s. 6d.
- THE NAVY OF TOMORROW. The Story of H.M.S. "Illustrious". By Captain Frank H. Shaw. Crown 8vo. 232 pages. (Werner Laurie, 1950.) 9s. 6d. Presented by the
- THE WORST ENEMY. Portrait of a Harassed Naval Officer. By Gilbert Hackforth-Jones. Crown 8vo. 254 pages. (Hodder and Stoughton, 1950.) 9s. 6d. Presented by the Author.

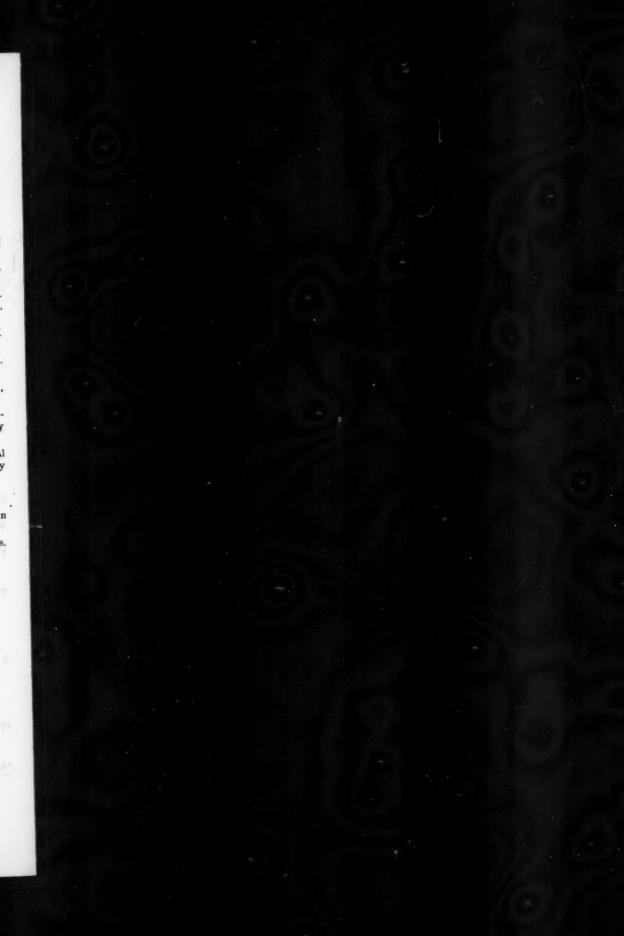
ARMY

- A SHORT HISTORY OF THE BRITISH ARMY. By Major Eric William Sheppard. Medium 8vo. 505 pages. (Constable, Fourth Revised and Enlarged Edition, 1950.) 30s. Presented by the Publishers.
 - This new edition is revised and enlarged to cover the history of the British Army during the Second World War.
- *THE HISTORY OF THE XII ROYAL LANCERS. (Prince of Wales's.) By Captain P. F. Stewart. Demy 8vo. 516 pages. (Oxford University Press, 1950.) 3os. Presented by the Publishers. (See Review in this JOURNAL.)
- *A SHORT HISTORY OF THE BUFFS. By Brigadier E. Foster Hall. 128 pages. (The Medici Society, Second Edition, 1950.) Presented by the Author.

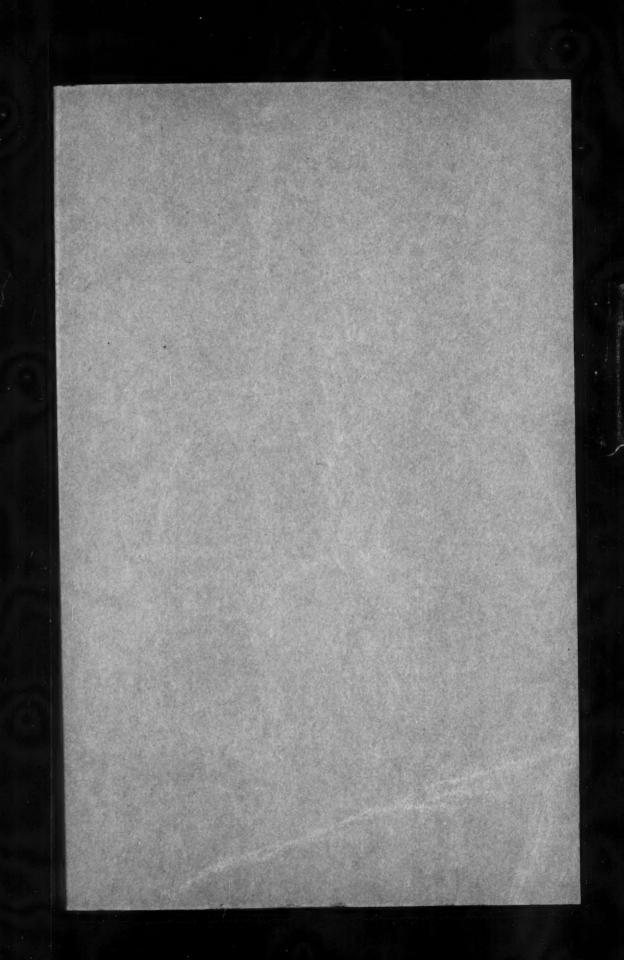
- *HISTORY OF THE ARGYLL & SUTHERLAND HIGHLANDERS, 5TH BATTALION. 91st Anti-Tank Regiment, 1939-45. By Major Desmond Flower. Medium 8vo. 395 pages. (Nelson, 1950.) 15s. Presented by the Colonel of the Regiment.
- THE HISTORY OF THE 48TH (South Midland) DIVISIONAL SIGNALS TERRITORIAL ARMY. Volume II. 1933 to 1939. By Brigadier E. A. James. Pamphlet. 30 pages, (Published privately, 1950.) Presented by the Author.
- THE HISTORY OF THE GUIDES. Part II. 1922-1947. By Lieut.-General Sir George MacMunn. Crown 4to. 208 pages. (Gale and Polden, 1950.) Presented by the Publishers. (See Review in this JOURNAL.)
- *ONE HUNDRED GLORIOUS YEARS. A History of the Punjab Frontier Force 1849-1949. By Major-General M. Hayaud Din. Foolscap 4to. 36 pages. (Published privately, 1950.) Presented by the Author.
- *Fourteenth Punjab Regiment. A Short History, 1939-1945. Demy 8vo. 111 pages. (Published privately, 1950.) Presented by General Sir Arthur Brodie Haig, K.C.B., M.C.
- *THE ROYAL HOSPITAL CHELSEA. By Captain C. G. T. Dean, Medium 8vo. 328 pages. (Hutchinson, 1950.) 21s.
- LORD CHELMSFORD AND THE ZULU WAR. By Major the Hon. Gerald French. Demy 8vo. 436 pages. (The Bodley Head, 1939.) 21s. Presented by the Author.
- WITH ROMMEL IN THE DESERT. By H. W. Schmidt. Crown 8vo. 287 pages. (Albatross, Durban, 1950.) 4s. 6d.
- THE PURSE AND THE SWORD. Control of the Army by Congress through Military Appropriations 1933-1950. By Elias Huzar. Medium 8vo. 417 pages. (Cornell University Press, 1950.) 36s. Presented by the Publishers. (See Review in this JOURNAL.)
- SWORD AND PEN. Some Problems of a Battledress Army. Ten Essays by Major-General A. C. Duff. Crown 8vo. 108 pages. (Gale and Polden, 1950.) 7s. 6d. Presented by the Publishers. (See Review in this JOURNAL.)

ATR

- THE ROYAL AIR FORCE IN THE WORLD WAR. Volume IV. 1940-1945 (II). By Captain Norman Macmillan. Large post 8vo. 360 pages. (Harrap, 1950.) 15s.
- PLANNING IN PRACTICE. Essays in Aircraft Planning in War-time. By Ely Devons. Demy 8vo. 231 pages. (Cambridge University Press, 1950.) 158.







HAND-HELD RANGEFINDERS

FOR USE AT SHORT RANGES



These small light-weight Rangefinders (18-inch and 8-inch base respectively) are extremely useful for land or river surveying; the 18-inch can also be used for ships' station-keeping or mooring.



BINOCULARS



(SEPARATE OR CENTRAL FOCUSING TYPES)

Informative Booklet C50/US on request.

BARR & STROUD LTD

Head Office and Works
ANNIESLAND, GLASGOW, W.3

Lendon Office: 15 VICTORIA STREET, S.W.1

"The R.U.S.I. Journal" is published in February, May, August and November of each year.

Registered for Transmission to Canada by Canadian Magazine Post.

